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THE

MOTOR AGE

THE AUTOMOBILE AUTHORITY OF AMERICA

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FOR AND ABOUT AUTOMOBILE CLUB MEN



PERFECT harmony of opinion seems to prevail between the manufacturers' association and the Automobile Club of America over the conditions of the run from New York to Buffalo. The rules have just been issued by the club and investigation shows that the recommendations made by the makers' association early in March have been accepted without amendment.

So far as may be seen at first glance the conditions are well adapted to the purpose for which they are framed. The only objection will come from the few makers of three-wheeled vehicles which are ineligible under the rules. The rules are intended to discourage excessive speed, for no record of anything over fifteen miles an hour will be recognized. Briefly stated the rules provide for the awarding of the highest possible honors to those vehicles which maintain the best average speed over the entire distance, not in excess of fifteen miles an hour. There will be chances for bursts of speed, however, for the rules seem to contain nothing which may be construed to prevent drivers stopping as long as they please should they find themselves approaching one of the duly appointed stopping places ahead of time.

The conditions of the "first annual endurance contest" are here given in detail:

1. That a 500-mile endurance test of automobiles be held during the week commencing September 7, 1901.

2. That the official route of the trial be from New York to Buffalo, and that the trial terminate at Buffalo.

3. That the total distance be divided into "stages" for each day, on the basis of covering approximately 85 miles per day, but that the division of distance be left to the discretion of the committee:

First stage: From club house to Poughkeepsie; approximate distance, 90 miles.

Second stage: From Poughkeepsie to Albany; approximate distance, 70 miles.

Third stage: From Albany to Little Falls, including a hill climbing trial near Little Falls; approximate distance, 85 miles.

Fourth stage: Little Falls to Syracuse; approximate distance, 85 miles.

Fifth stage: Syracuse to Rochester; approximate distance, 90 miles.

Sixth stage: Rochester to Buffalo; approximate distance, 80 miles.

Total approximate distance, 500 miles.

The trial to start on Monday morning from the club house and to finish at Buffalo on Saturday afternoon of the same week.

4. That this contest be open to all classes of self-propelled vehicles, but that no manufacturer, agent or private owner be allowed to enter more than three vehicles in any one class.

5. Vehicles shall be divided into five classes or divisions, and all four wheeled vehicles shall carry two or more persons. Following are the classes:

Under 1,000 pound class: Four wheeled motor vehicles weighing under 1,000 pounds, in commercial running and operating condition, with all tools, fuel and supplies on board.

1,000 to 2,000 pound class: Four wheeled motor vehicles weighing between 1,000 and less than 2,000 pounds, in commercial running and operating condition, with all tools, fuel and supplies on board.

2,000 pound or over class: Four wheeled motor vehicles weighing 2,000 pounds or over, in commercial running, and operating condition, with all tools, fuel and supplies on board.

Motor cycle class: Motor bicycles, motor tricycles and motor quadricycles.

Public service class: Public conveyances and freight conveyances. These shall carry a minimum weight of 750 pounds, exclusive of their driver.

6. That the conditions of this endurance test shall be average speed for the six days, and any competitor falling below an average of eight miles per hour for any one period shall not receive any credit for that period.

Certificates shall be awarded by the club as follows:

A. Certificate, average speed from twelve to fifteen miles per hour. B. Certificate, average speed from ten to twelve miles per hour. C. Certificate, average speed from eight to ten miles per hour.

That no average speed in excess of fifteen miles per hour shall be recognized.

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Public service vehicles shall receive a certificate stating their average speed, which must not be less than eight miles per hour, and the weight carried shall also be stated in the certificate.

7. All vehicles, whether electric, steam or gasoline, or otherwise, shall operate in the same class, divided only as designated by weight.

8. Controls are to be officially established at the start of each day's run, at the lunching places and at the finishing places of each day's run. The start is to be made each morning at 8 o'clock, and an hour and a half allowed for lunch.

9. Controls are also to be established on the hill climbing trial near Little Falls, which trial will be a separate matter.

10. The test is to be under the charge of a committee to be designated by the club, and they to have entire charge of the details and control of the run from time of start to finish, and shall render their report to a board of judges of not less than three, who shall make the awards and decisions, such judges to be appointed by the board of governors, and to be entirely disinterested from any manufacturer or allied interests in the automobile line.

11. The entrance fee for all classes, motor cycles excepted, shall be \$50 for each vehicle. In the motor cycle class the entrance fee shall be \$25 for each vehicle.

12. An official catalogue is to be issued by the committee giving detailed information of the trial, such as rules and regulations governing the trial, names, addresses and tariffs of the hotels where stops will be made, places where vehicles will be stored over night, gasoline agents and map of the entire route of the trial, also such other information as may be advisable and necessary. Advertisements will be allowed in this catalogue, under the direction of the committee in charge of the run, and no manufacturer to be allowed to take or purchase more than one page for advertising purposes in such catalogue.

13. That suitable direction posts be erected along the entire route of the trial, similar to those that are proposed to be erected between New York, Boston, Albany and Philadelphia; these posts to be permanent and to be erected under the supervision of the Automobile Club of America, in co-operation with other clubs, along the route of the trial.

14. That the friendly co-operation and assistance of the police and village, town, city and county road commissioners along the route of the trial be secured as far as practical and possible.

15. That each competing vehicle have securely attached to it in a conspicuous position, an official number corresponding with the said number in the catalogue,

and that no other marks or signs other than the manufacturer's usual name or number plate affixed to a vehicle as sold to a customer, be allowed during the period of the trial.

16. That the trial committee officially issue from time to time to the technical press such information regarding the trial as may in their opinion be considered advisable.

17. The penalty for a vehicle being towed in any period shall be disqualification for that period.



CHICAGO CLUB'S RUN

Common sense rules were adopted for the run of the Chicago Automobile Club last Sunday. The members were requested to "follow the leader" until clear of the city limits, the request being due to a knowledge of the fact that the Lincoln Park commissioners would not permit a repetition of the tactics of the first run when the members raced along the Lake Shore drive at their best speed. Once clear of the city, however, all hands were permitted to make the best of their way to Wheeling where dinner was to be served. The home-coming was a repetition of the outgoing experience.

Sixteen members and a host of friends started and fourteen came home with the procession. The other two fell by the wayside from misfortunes which were not, in any way, the fault of the machines they operated.



RUN BECAME A RACE

New York, April 28.—Real spring weather greeted the A. C. A. on its run Sunday morning to Oyster Bay, L. I. Eighteen vehicles started from the club house at 9:30, with drivers and guests as follows:

D. H. Morris, Locomobile; S. T. Davis and Albert R. Shattuck, president of the club, Locomobile; R. Esterbrook and W. Wales, Winton; J. H. Carpenter and Ralph Brandreth, Winton; P. Perry and F. T. Craven, De Dion; Jefferson Seligman and Maurice Sternberger, De Dion; James McNaughton, Winton; C. J. Field and M. W. Ford, De Dion; George Isham Scott and Mr. Wawn, De Dion; E. T. Kimball and J. Leeds, Gasmobile; S. H. Tyng and R. E. Jarrige, Winton; Frank Eveland and Mr. Thompson, Knox; H. Ward Leonard, Century; Morris P. Stevens, Stearns; Robert L. Niles, Locomobile; Oscar L. Richard, De Dion tricycle; J. Grant Lyman and J. Dunbar Wright, Panhard-Levassor; Dr. H. B. Baruch, Darracq; Robert Graves, Locomobile.

The route was up Fifth avenue and down Ninety-ninth street to the ferry, where a special boat was waiting to car-

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ry them to College Point. At the ferry Dr. Barruch and Robert Graves dropped out. Dr. Grant Lyman, in his well-known red Panhard-Levassor, started a half-hour late, but caught the run between College Point and Jericho.

With twenty-three miles of perfect macadam ahead to Jericho the temptation for a race was too great for some of those with an excess of sporting blood in their veins to resist. In fact in a few minutes the whole pack was in a scurry to get to Jericho first. Mr. Kimball got a lead early in the race and increasing it gradually reached Jericho in 59 minutes, with Mr. McNaughton second in 1:04:00, Mr. Field third in 1:15:00 and Mr. Leonard fourth in 1:16:00.

The route was by way of Willett's Point, Queens, Floral Park, Mineola and Westbury to Jericho. Messrs. McNaughton, Lyman and Eveland were the only ones to go on to Oyster Bay. They, however, returned for lunch at Jericho. Here the run was joined by several members of the Long Island Automobile Club, including C. W. Spurr, with a special vehicle; H. S. Chapin, Haynes-Apperson; H. B. Fullerton and L. R. Adams, Winton; and F. G. Webb and A. R. Partridge, Winton.

The race home to College Point resulted in a different order of finish. Mr. Leonard, in his Century gasoline, was first in 55 minutes, with Mr. Kimball second and Mr. Scott third.

SPORT AND INSANITY

Philadelphia, April 29.—Next Memorial Day will witness the first automobile race meet ever held in this city. It will be run by a company of amusement promoters, and will be a play for a big gate from the drop of the hat. The affair will be held in the American League ball grounds at 29th and Columbia avenue, in which it will be possible to stake off a five-lap track without an inch of banking—for the baseball people will not allow the newly-graded field to be dug up. The contests as announced will be at distances ranging from five to fifty miles, and will include events for motor cycles as well as automobiles.

The Pennington "hot air" auto is being featured as one of the contestants, and weird paper visions of sixty miles in sixty minutes are being conjured up for the benefit of unwary Quakers with a half holiday on their hands and a half dollar in their pockets.

Genial "Bob" McCurdy, who since hanging up his hat with the Gasmobile people has been about 95 per cent of the whole thing hereabouts in the automobile speed line and whose sweeping challenge to

Quaker chauffeurs has been allowed to lay unmolested for a quartet of fortnights, has had his hand called. A Camden grocer, one Oscar A. Eastlack, has an auto-car and an idea that it can show "Bob" its rear wheels. The Camdenite, however, desires to have the show down take place on a suitable track, where all hands can see the cards. Mr. Eastlack is a true sport, and proposes injecting a little ginger into the affair by having each side hang up a \$500 shinplaster as an earnest of good intentions. "Bob" prefers a straightaway plunge from Camden to the ocean, but, as he thinks it a case of "easy money" he may see his way clear to accommodate Mr. Eastlack by transferring the contest to one of the local trotting tracks.



CLUB AT INDIANAPOLIS

A committee of Indianapolis men, consisting of Harry Hearsey, A. C. Newby, C. Koehring and S. W. Elston has been appointed to see the owners of automobiles in the city, as well as those who expect to become owners, with a view to the formation of a club. A meeting is to be held at the Commercial Club rooms this week and the Indianapolis Automobile and Touring Club will probably be organized.



DEATH OF F. W. TOUSEY

New York, April 27.—F. W. Tousey, assistant secretary of the Automobile Club of America, died at his home at Bridgeport, Conn., on Monday evening, Wednesday, at the age of thirty-two. Mr. Tousey was taken ill with pneumonia on the day of the opening of the club's new quarters at the Plaza. He was sent by the club to the Presbyterian Hospital and a month ago was discharged, sufficiently recovered to be removed to his home. He, however, suffered a relapse, resulting in his death.

Mr. Tousey was an American, but married an English wife, and had spent much of his life in London. He became prominent in the motor vehicle world through being assistant secretary of the Automobile Club of Great Britain and Ireland. He was the general manager of each year's famous 1,000-mile endurance run through Great Britain, in which sixty-three vehicles out of eighty entries went through. It was he who arranged the programme and compiled the elaborate report of the test.

By reason of his prominence in both these capacities the A. C. A. sought successfully to induce him to become its working secretary and to take charge of the proposed great endurance run to Buf-

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falo. Accordingly he returned to this country last summer.

Mr. Tousey brought over with him the steward of the A. C. of G. B. and I., who now acts in that capacity for the A. C. A. The deceased secretary won for himself many friends in the club. The members bore the expense of his sickness and at the club night following his death subscribed a handsome sum for his wife and two children.



READY TO INVADE PARKS

New York, April 27.—There was great rejoicing Thursday night at the A. C. A. club house at the receipt of news that Governor Odell had signed the Doughty bill. The next day several chauffeurs attempted to enter Central park with their vehicles, but were prevented by the police, who said they had not yet received instructions in the matter.

President Clausen, of the park board, did not receive an official copy of the bill until three o'clock in the afternoon of the day following its signature and informed Mr. Chamberlin, of the A. C. A. law committee, that he would call a meeting of the board at once and take immediate action toward admitting the automobiles to the park.



The Chicago Automobile Club has issued a card of runs for the first part of the season. The secretary reports that there are indications that the membership will reach 100 before the first of June, at which

time the initiation fee will take effect. A formal opening of the club rooms will take place on Thursday, May 9, and on May 23 there will be a business meeting of importance.

Although Chicago was the first western city, at least, to form an automobile club, it had little start of Fort Wayne, which followed suit last week. It held a club run last Sunday. Harry Pickard is its president and Will Bostick its secretary and treasurer.

The Automobile Club of Cincinnati has rented permanent quarters for its club-rooms at 30 West Seventh street. This is an ideal location right in the center of the city, on a comparatively quiet street, and there are plenty of places around for the storage of vehicles.

The commissioners of Druid Hill Park, Baltimore, have accepted an offer of \$750 and 20 per cent of the gross receipts from William H. Weedon for the privilege of operating automobiles for public use in the park. There were several other bidders for the privilege.

The members of the Automobile Club of France are said to be very much excited because Vanderbilt, who was recently elected a life member, has bought a German machine. Yellow journalism, no doubt.

The Bridgeport Automobile Club will probably arrange a trip to New Haven on May 25 for the purpose of meeting the Automobile Club of America there.

THE DOUGHTY HIGHWAY BILL

AS the first of its kind, and having of New York after it had been appassed the legislature of the state proved by practically all of the people to whom it applies, the Doughty bill will probably form the basis of similar legislation in other states. It is therefore here produced in its entirety.

It is entitled, "an act to amend the highway law, in relation to the use of the highways by automobiles or motor vehicles and requiring the owners of such vehicles to register with the secretary of state," and reads as follows:

Section 1. Sections one hundred and fifty-five, one hundred and sixty-two and one hundred and sixty-three of chapter five hundred and sixty-eight of the laws of eighteen hundred and ninety, entitled

"An act in relation to highways constituting chapter nineteen of the general laws," are hereby amended to read, respectively, as follows:

155. Steam traction engines on highways.—The owner of a carriage, vehicle or engine, propelled by steam, his servant or agent, shall not allow, permit or use the same to pass over, through or upon any public highway or street, except upon railroad tracks, unless such owners, or their agents or servants, shall send before the same, a person of mature age, at least one-eighth of a mile in advance, who shall notify, and warn persons traveling or using such highway or street, with horses or other domestic animals, of the approach of such carriage, vehicle or engine; and at night such person shall carry

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a red light, except in incorporated villages and cities. This section shall not apply to any carriage or motor vehicle, propelled by steam, developing less than twenty-five horsepower, other than a steam traction engine.

162. Term carriage defined.—The term carriage as used in this article, shall be construed to include stage coaches, wagons, carts, sleighs, sleds, automobiles or motor vehicles, and every other carriage or vehicle used for the transportation of persons and goods, or either of them, and bicycles, tricycles, and all other vehicles propelled by manumotive or pedomotive power, or by electricity, steam, gasoline, or other source of energy.

163. Entitled to free use of highways.—The commissioners, trustees, or other authorities having charge or control of any highway, public street, park, parkway, driveway or place, shall have no power or authority to pass, enforce, or maintain any ordinance, rule or regulation, by which any person using a bicycle or tricycle, an automobile or motor vehicle whether the same be propelled by steam, gasoline, electricity, or other source of energy, shall be excluded or prohibited from the free use of any highway, public street, avenue, roadway, driveway, park, parkway or place, at any time when the same is open to the free use of persons having and using other pleasure carriages, except upon such driveway, speedway or road as has been or may be expressly set apart by law for the exclusive use of horses and light carriages. The board of supervisors of any county may adopt ordinances regulating the speed of automobiles or motor vehicles on the highways or streets of such county, outside the limits of cities. No ordinance, rule or regulation adopted by the authorities of any municipality in pursuance of this section or of any other law, shall require an automobile or motor vehicle to travel at a slower rate of speed than eight miles per hour, within any city, town or village of the state in the built-up portions thereof, nor at a slower speed than fifteen miles per hour where the same are not built up. An ordinance adopted by a board of supervisors in pursuance of this section, regulating the rate of speed of automobile or motor vehicles on the highways or streets of such county outside of cities shall supersede any such ordinance in such county adopted by the authorities of a town, or village. But nothing herein shall prevent the passage, enforcement or maintenance of any regulation, ordinance or rule, regulating the use of bicycles or tricycles in highways, public streets, driveways, parkways and places, or the regulation of the speed of carriages, vehicles, engines, automobiles or other motor vehi-

cles in public parks and upon parkways and driveways in the city of New York, under the exclusive jurisdiction and control of the department of parks of said city nor prevent any such commissioners, trustees, or other authorities in any other city from regulating the speed of any vehicle herein described in such manner as to limit and determine the proper rate of speed with which such vehicles may be propelled, nor in such manner as to require, direct or prohibit the use of bells, lamps and other appurtenances nor to prohibit the use of any vehicle upon that part of the highway, street or parkway, commonly known as the footpath or sidewalk.

Sec. 2. Article six of such chapter is hereby amended by adding thereto the following sections:

Registration by owners of automobiles.—Every owner of an automobile or motor vehicle shall, within thirty days after the amendment to this section takes effect, file in the office of the secretary of state a statement of his name and address, with a brief description of the character of such vehicle, and shall pay to the secretary of state a registration fee of one dollar. The secretary of state shall issue to such person a certificate, stating that he has registered in accordance with this section, and shall cause the names of such persons to be entered in alphabetical order in a book kept for such purpose. Every person hereafter acquiring an automobile or motor vehicle shall, within ten days after acquiring the same, register with the secretary of state as required by this section. This section shall not apply to a person manufacturing or dealing in automobiles or motor vehicles, except those for his own private use.

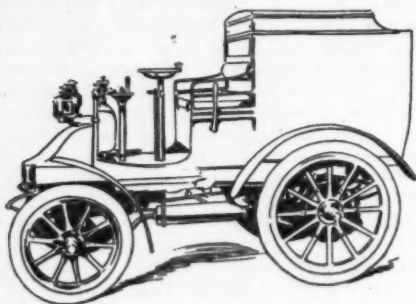
167. Use of highways by automobiles.—No person driving or in charge of an automobile or motor vehicle on any street, avenue, parkway or driveway in this state, shall drive the same at any speed greater than is reasonable and proper, having regard to the traffic and use of the highway, or so as to endanger the life or limb of any person.

168. Brakes and lamps on automobiles.—Every automobile or motor vehicle shall be provided with good and efficient brakes, and shall also be provided with a suitable bell, horn or other signal. Every automobile or similar motor vehicle shall be so constructed as to exhibit during the period from one hour after sunset to one hour before sunrise, two lamps showing white lights visible within a reasonable distance in the direction towards which the automobile is proceeding, and shall also exhibit a red light visible in the reverse direction. The lamps shall be so placed as to be free from obstruction to

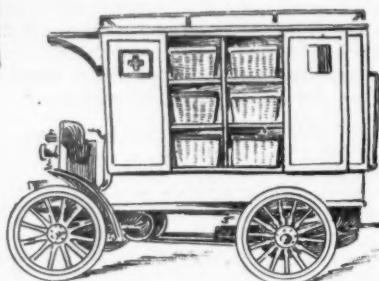
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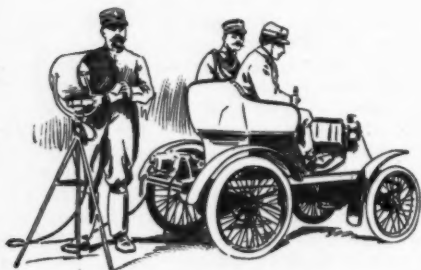
RECENT PATTERNS OF FRENCH ARMY AUTOS



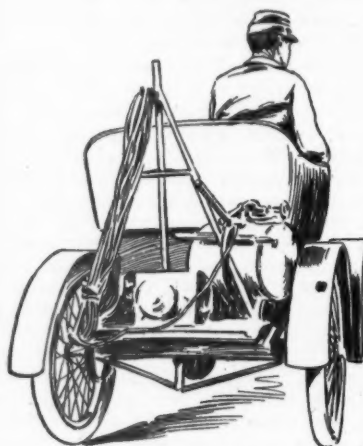
Army Mail Delivery Wagon.



Red Cross Medicine Wagon.



Signal Service Carriage with Signalling
Light in Position.



Signal Service Vehicle on the Road.

✻ ✻ ✻

light from other parts of said automobile or motor vehicle.

169. Stop automobile on signal.—Every person driving an automobile or motor vehicle shall at request or signal by putting up the hand, from a person driving or riding a restive horse or horses, or driving domestic animals, cause the automobile to immediately stop and to remain stationary, so long as may be necessary to allow said horses or domestic animals to pass. This provision shall apply to automobiles going either in the same or in an opposite direction.

169a. Licenses or permits for automobiles.—Any person owning or operating an automobile or motor vehicle, whether the motive power of the same be electricity, steam, gasoline or other source of energy, except such as are used for public hacks, trucks or other vehicles for hire, shall not be required to obtain any license or permit pursuant to the provisions of any local or municipal resolution or ordinance,

or the rules or regulations of any commissioners, trustees, supervisors or other authorities having charge or control of any highway, public street, parkway, driveway or place, or pursuant to the provisions of any municipal charter or any other statute, except as herein contained. Every such automobile or motor vehicle shall have the separate initials of the owner's name placed upon the back thereof in a conspicuous place, the letters forming such initials to be at least three inches in height.

169b. Penalties.—The penalty for violating any of the provisions of section one hundred and sixty-three or sections one hundred and sixty-six to one hundred and sixty-nine-a, both inclusive, relating to automobiles or motor vehicles propelled by electricity, steam, gasoline or other source of energy, shall be not exceeding twenty-five dollars.

Section 3. This act shall take effect immediately.



NEWS OF THE MOTOR INDUSTRY



THE NEW factory of the Locomobile Co. of America, at Seaside Park, Bridgeport, Conn., is described as the finest in America, if not in the world. It is expected that the entire equipment will be located there in a few weeks, but at present the assembling is still done at the old shops on East Washington avenue. The engine department is now housed at the new factory. In a four-seated carriage at present in course of construction, Superintendent Spears has introduced a pipe running from the engine into the water tank, thus securing a saving of fuel. The capacity of the tank has also been enlarged.

HAS MOVED TO UTICA

The Remington Automobile Co.'s location in Utica has been decided upon. Last week a lease was entered into for a building in the city, formerly occupied as a furniture factory. It has three stories, each 35x100 feet. Machinery and about a dozen mechanics will be removed there from Ilion as soon as possible, the remainder of the employees to be selected from local men. About forty will be needed at the start. Louis Graham, a local man, has taken an interest in the company and it is reported that he will probably be elected treasurer. The Remington company will establish a marine department and will sell launches complete or the motors separately. The permanent location of the works has not yet been decided. The building and other matters will take so much time that the temporary quarters were decided on to save time in commencing operations.

FOUND GOOD AND FAITHFUL

The report of the receivers of the Baldwin Automobile Mfg. Co. for the three months ended April 24 having been presented to the court and found satisfactory, it has been ordered that the operations continue six months longer. Any one interested may appear in court on May 25 and lodge objections unless they

are satisfied with the existing arrangement. The receivers are satisfied, however, that they will eventually pay off every penny of the company's indebtedness.

NEW YORK TRADE GOSSIP

New York, April 28.—Important action is said to have been taken at the recent meeting of the executive committee of the National Association of Automobile Manufacturers, which took the form of a resolution, now awaiting the result of a mail vote before being given out for publication, though the votes already received show a majority in its favor.

The manufacturers' association will establish headquarters at the Pan-American Exposition.

Herbert Githens, the well known cycle racing veteran, has come from Cleveland to take charge of the Fifth avenue salesroom of the American Bicycle Co.

The Locomobile Co. of America is moving its offices from the Bowling Green Building to the Transit Building, East 42nd street.

Elmer Apperson drove the Haynes-Apperson vehicle, which scored 100 per cent in the Long Island endurance test.

SENT FROM SYRACUSE

Syracuse, N. Y., April 29.—C. A. Benjamin will be home this week to take charge of the store of the Locomobile company in West Water street. Benjamin has been traveling through the south all winter and has had great success in placing agencies. The southern newspapers have been full of his doings and he created a sensation in several places where the natives had never seen a motor vehicle. The Locomobile company has a large store here, besides a repair shop.

Archle E. Hughes, bicycle and automobile dealer, of East Washington street, lost two fingers of his left hand Saturday evening in front of his store. He had an automobile out yesterday and on returning to the store found that the

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sprocket wheel needed tightening. He tried to take off the chain and his fingers were drawn between the chain and the teeth of the sprocket. The second finger had to be amputated below the second joint and the first finger was taken off at the first.

Henry L. Trebert, the former bicycle man and at present superintendent of the plant of the Stearns Steam Carriage Co., has returned from his wedding trip to Washington and other southern cities. His bride was Miss Maude Ward, daughter of Mr. and Mrs. Eugene Ward, of Chicago. They were married at Grace church, Chicago, April 16. They will live at the Mowry hotel in this city.

The recent trip of Don B. Smith, manager of the Olive Wheel Co., to the New England states, had a bad effect, as he has been sick since his return. He was at the factory the latter part of the week, however, and said that he was just as good as new again. The Holley motors, which are being made by the Olive company, are ready for shipment. Most of them are put together at Bradford, Pa.

The Century Motor Vehicle Co. is at work on a new electric delivery wagon.

WINTON'S LONG TRIP

Alexander Winton expects to leave Cleveland on May 20 for San Francisco, to prepare for the trip across the country. Mr. Shanks, who left Chicago three weeks ago in search of the best route, reports that the fall of snow on the mountains has been extraordinarily heavy, and recommends that the start be delayed as long as possible. The Pan-American, the endurance test and other things will have to be looked after by Mr. Winton, however, so that he is desirous of leaving the coast with as little delay as possible.

WAR OFFICE BUYS A LOGO

A cablegram from London to the Chicago Daily News, dated April 30, says:

American automobile manufacturers are winning the favor of British officials, both municipal and national. The war office ordered the purchase of an experimental car to-day, intending to submit it to a series of hard field tests in the hope of discovering a satisfactory substitute for the horse. An official of the department said to the correspondent of the Daily News:

"We have about reached the conclusion that some form of motor traction must come into general military use. Our South African operations have been more

seriously handicapped by the collapse of the horses of the army than by anything else. After an investigation of the automobiles manufactured by Europeans and a comparison of them with those produced by Yankees, we incline to the belief that the latter lead the world in their conception and execution of self-propelled vehicles."

The particular car with which the war office is experimenting is run by steam generated with liquid fuel. It is produced by the Locomobile Co. of America. Chief Commander Wells of the London fire department, for whom the London county council has purchased one of these machines, says that he finds horses altogether too slow for effective fire fighting. He predicts that eventually London's entire fire department will make its runs with motor cars.

It may be supposed, however, that the natives will need some time to master the art of getting out of the way.

UNITED VEHICLE POWER CO.

New York, April 27.—Many months ago your correspondent referred to the vehicles to be put out, when all was ready by the United Power Vehicle Co., whose offices are at 35 Nassau street, and whose officers are: W. Myron Reynolds, president; James McNab, treasurer, and Louie J. Harris, mechanical engineer and manager. The warerooms are at 114 Fifth avenue. The company has factories at Springfield, Mass.; Rutland, Vt., and Stamford, Conn., and is capitalized for a million dollars.

It will put out electric, gasoline and steam vehicles of several varieties including a steam runabout, a special runabout, a stanhope, a dos-a-dos, a commercial wagon, an auto truck of four tons capacity, a gasoline surrey, a Victoria top phaeton, a gasoline top phaeton, and a bus carrying sixty passengers. The company's catalogue states that several of these styles are already finished, but that it will be thirty days before it can begin to fill orders from the public.

W. Myron Reynolds, president of the United Power Vehicle Co., was seen by an Age man to-day. Mr. Reynolds will be remembered as having been the principal backer of Frank Duryea in his attempt to establish an English company in London on the occasion when Mr. Duryea refused a large sum for his patents.

"Besides James McNab, our treasurer, and Louie J. Harris, our mechanical engineer," said he, "our other directors are Thomas Hood, secretary, and W. H. Llewellyn, vice-president. We have secured the plant and patents of the Inter-

NEWS OF THE INDUSTRY.

national Motor Carriage Co., at Stamford, Conn., for our steam vehicles. Our gasoline carriages will be built at a Springfield factory and we have leased a factory at Rutland, Vt., for our electric carriages. Samples of all those kinds are now on view at our warerooms, 114 Fifth avenue, among them are International M. C. Co. steam carriage, which has been tested for 10,000 miles. We will shortly be turning out each month twenty-five gasoline carriages and five each of the electric and steam vehicles. We have 150 orders ahead on our books. We have issued but half of our million dollars of stock. We have set apart a thousand shares of the par value of \$100, which we are selling to our agents and branch managers at \$25, and over half of this special stock has already been sold in this way. We have been testing and preparing for months for the manufacture of our three varieties of carriages and are now in a position to accept orders."



INTO A NEW SHOP

The Conrad Motor Carriage Co., of Buffalo, will move into its new factory at 1417 Niagara street, May 20. This move is the result of the development of the company's business, which has outgrown the facilities of the present plant. The new factory is in a splendid location with excellent street car and railroad facilities and will be well equipped for rapid production of the company's output. There will be no delay in the filling of orders on account of the change, as the moving has been arranged so that it will not detract from the manufacturing operations.

The company reports the development of a gratifying export trade and states that a very desirable order has just been received from Glasgow, Scotland. Conrad goods will be exhibited in space five in the machinery and transportation building at the Pan-American.



John A. Bechtel, member of the American Society of Mechanical Engineers, for a number of years past superintendent and secretary of the Hawley Down Draft Furnace Co., and recently general manager of the Baldwin Automobile Mfg. Co., has connected himself with the Milwaukee Automobile Co., convinced that the vehicles manufactured by that company are superior to any other steam vehicles made. The company is running its factory double turn, twenty-three hours every day.

Business is rushing at the works of the Searchmont Motor Co., of Philadelphia, whose spring campaign has just commenced. Beginning on Monday of

this week the company put on an all-night force, doubling its capacity by working the factory twenty-four hours per day.

Swift & Detrich, of the Empire Mfg. Co., of Sterling, Ill., have entered into a contract to produce one of the automobiles on which they have been working for a long time, and deliver it to a Chicago man in thirty days. They expect to manufacture on a large scale in due course.

A steam delivery wagon, designed by L. F. Baldwin, is being tested at Providence. It weighs 1,800 pounds, and is expected to carry a load of 1,500 pounds in addition to the driver. It is equipped with Mossberg roller bearings.

Bert Shaw, formerly of the Mobile company's Chicago branch, has just returned from a vacation and is undecided as to his plans. He will probably engage in the business in the near future, but will first make a visit to some of the factories.

The Tuscarawas Rubber Co. is building a factory at Beach City, O. The company has been capitalized at \$25,000 and will make cycle and motor vehicle tires.

Silas D. Drake, of the Plainfield (N. J.) Automobile Co., is responsible for the statement that there will soon be seven lines of automobiles running in that city.

The Ohio Automobile Co., of Warren, O., is building an addition to its factory and will probably decide to build a second story to the whole plant. Its business is increasing steadily.

The Alderman who made forty-nine miles a day with his automobile through the alleys of his ward could never have made the time had he stuck to the streets.—Chicago Daily News.

Tom Johnson, now mayor of Cleveland, has just become the owner of a steam vehicle designed principally for the use of his daughter.

London, Ont., is to have a motor vehicle factory backed by a company with \$250,000 behind it. J. H. Jewell is the active man in the concern at present.

The San Francisco fire department has decided to adopt an automobile for the use of its chief.

Even if the automobile succeeds in doing away with the horse, it is not likely to dispose of the nightmare.

The Motormobile Co. has been organized at Trenton, N. J., with capital of \$200,000.



AUTOMOBILE PATENTS AND MECHANICAL TOPICS



QUITE incredulous is it, in view of the American inventors for ridiculous great consideration shown by notions, that there are not at least a few patents coming through for gas engines which explode regularly three or four times a second, charge the exploded energy in a tank and draw from it a regular elastic power via a steam pipe for use in driving the vehicle at any rate of speed desired. Inventors of freaks are neglecting a rare chance to make themselves funny.

FREE-WHEEL CLUTCH

Letters patent No. 672,718, dated April 23, 1901, to Peter Steinhauer, of St. Louis.

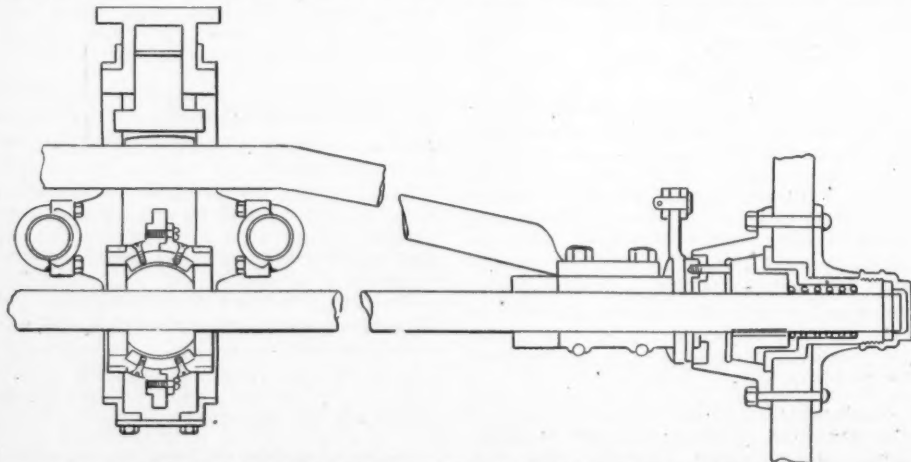
As a part of the rear axle system this inventor provides a wheel clutch which dispenses with a differential gear by allowing either rear wheel to be engaged from the axle. The other prominent feature of the invention is a cushioned, pivotal connection between the body spring support and the axle frame, this pivot being provided to insure horizontality of the body regardless of the movements of the axles.

The free-wheel clutches are arranged so that they can be mechanically operated in

unison to effect disengagement when it is desired to discontinue driving, or separately for turning corners. It is the old spring clutch scheme altered and with additions thereunto. From a mechanical standpoint it is typically St. Louis-like.

The wheel hub is loosely mounted on the axle and separable. It is made to form an enclosed pocket within which is a conical or taper seat adapted to engage a conical disk splined to the axle and backed by a coil spring which normally forces it into engagement with the seat and thus locks the wheel and axle together for rotation.

Adjacent to the inner end of the hub is a disk loosely mounted on the axle and formed with a series of inclined-side, radial notches on its inner side. The notches engage a corresponding series on the outer end of the axle journal box. Projecting from the outer face of the disk are three pins which enter registering holes in the end of the hub and rest against the face of the friction clutch slide block. Suitable connecting rods between the disk and the operator's handle provide means for rotating the disk so that by so doing the inclined face notches will be disengaged and the disk forced outward on the axle. This movement obviously causes



STEINHAUER'S FREE-WHEEL HUB AND REAR AXLE.

AUTOMOBILE PATENTS.

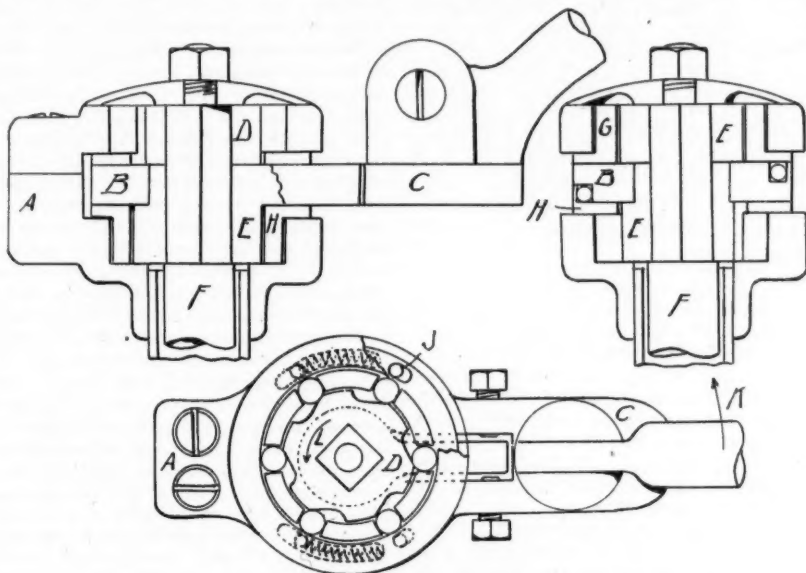
the disengagement of the friction clutch.

Inasmuch as the hub is free to move longitudinally of the axle and the friction drive clutch is entirely contained within its two fixed extremities, the clutch would not tend to free itself automatically when the vehicle ran on a curve. Thus, when turning corners, the driver would be compelled to disengage either the one or the other of the two wheel clutches mechanically to prevent one wheel from sliding.

The pivotal mounting for the rear axle

the accompanying illustration, is a central steel plate, B, having an extending arm, C, with an interior slot connecting with the round central opening in the plate. The portion C of the plate B carries opposite set screw stops.

Within the casing A, and at opposite sides of the plate B, are reverse roller clutch blocks, D and E, in the form of collars non-revolubly mounted on the upper reduced end of the steering post F. The clutch rollers are held loosely in openings in the vertical walls of two loose steel



MADDEN'S STEERING MECHANISM CONTROLLER.

frame includes a spherical seat for the axle sprocket so that it will not be forced out of alignment with the driving sprocket when the axle is tilted.

STEERING CONTROLLER

Letters patent No. 672,644, dated April 23, 1901, to Albert F. Madden, of Newark, N. J.

This is another of the several recently patented, self-acting devices to prevent swerving of the steering wheels from their direction of travel should they strike an irregularity in the road surface, and to thus relieve the steersman of shocks and jars transmitted from the wheel to the hand lever.

The device in its preferred form is attached to the post of a steering tiller. It principally comprises two reversely acting roller clutches mounted within a two-part casing which is rigidly affixed to the upper end of the upright tube carrying the steering post. Within this casing, A in

cages, G and H, lying upon opposite faces of the plate B.

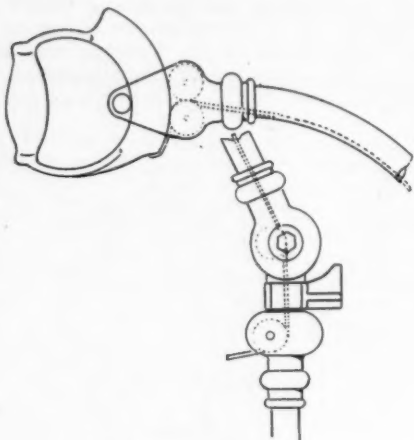
The lower clutch block E has a boss on its upper face which fits loosely within the round central opening of B, and a lateral extension or finger which fits loosely within the slot of the portion C of B, and is sufficiently narrower than the slot to have play between the two stop screws of the latter. The central plate B also carries an upwardly projecting pin, J, entering a slot in the flange of the upper roller cage G, and a downwardly projecting pin entering a slot in the flange of the lower cage H. A spring held in a curved slot in the upper face of the plate B expands against a pin projecting from the cage G, while a similarly arranged spring in the under face of B acts against a stop fixed on the lower cage H. These springs move the respective roller cages to normally carry the rollers outward on the clutch inclines.

On the end of the arm portion C of the plate B is a pivotal connection for the steering tiller so that it may be swung up-

AUTOMOBILE PATENTS.

ward to facilitate the seating of the driver and passenger.

If the steersman wishes to turn the vehicle to the left he will move the tiller in the direction of the arrow K in the plan view of the accompanying illustration. This turns the plate B in the same



Freeman's Rocking Tiller Handle.

direction and the first effect will be to cause the plate pin J to turn the roller cage G sufficiently to loosen the clutch and render it inoperative. The plate pin on the under side has clear movement in the slot in the cage H and so the lower clutch also remains inoperative. During these movements of the mechanism the finger or projecting arm of the clutch block E has been moving in the clearance space between its two stop screws. The distant the adjacent stop strikes this finger the hand tiller becomes in rigid connection with the steering post in the direction of movement, and the driver may thus turn the steering wheel. The operation of the mechanism is reversed for guiding the vehicle in the opposite direction.

Should the left hand steering wheel strike an obstruction the tendency would be to turn the steering post F in the direction of the arrow L in the plan view of the illustration. This tendency would be checked and the steering wheels locked by the engagement of the rollers of the upper clutch between the inclines of the block D and the surface of the casing A. Should the right hand steering wheel strike an obstruction it would create a tendency to turn the steering post F in the opposite direction and this tendency would be checked by the engagement of the under clutch E.

The mechanism can, if desired, be applied to some portion of the steering knuckle and link group in the running gear

instead of the steering post, although the inventor prefers the latter disposition for light carriages.



STEERING HANDLE

Letters patent No. 672,670, dated April 23, 1901, to Stuart E. Freeman, of St. Louis.

This is a steering lever with a rocking handle adapted to operate any valve or other controlling part of the driving or transmission mechanism of a motor vehicle.

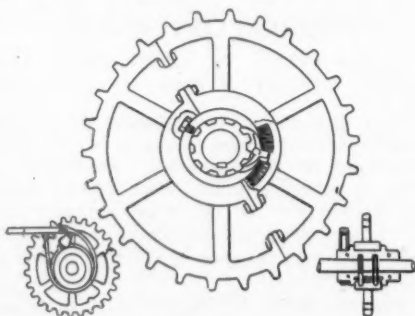
The steering lever or tiller is fitted with a flat, triangular, double piece at its end. Between the walls of this piece are mounted three anti-friction rollers which retain a flat curved plate forming a portion of a loop hand piece. The hand piece is thus capable of a combined rocking and sliding motion between the single and the two base rollers, and this movement raises and lowers the under front corner of the hand piece. To this corner is attached a wire or cord which runs into the hollow steering tiller over a groove in the lower of the two base rollers of the end fitting.

The cord passes downward inside the tiller to its hinged mounting on the top of the steering post where, by running over two other sheaves or rollers, it passes out of the post and toward whatever part is connected to it for operation. The raising and lowering of the entire steering tiller does not affect the position of the cord, but by rocking the hand piece it is pulled outward through the tiller or let back into its normal position according to the direction of movement of the hand piece.



CLUTCHES INSTEAD OF GEARS

Letters patent No. 672,784, dated April 23, 1901, to Joseph F. Kramer and John H. Blum, of Gunderson, Mont.



Kramer & Blum's Compensating Gear.

This is a compensating mechanism in which two ratchet and pawl clutches are used as substitutes for the usual spur or bevel gears.

AUTOMOBILE PATENTS.

The inner ends of the axle sections are supported by a rotatable split sleeve or journal box. On the end of each section of the axle is a ratchet and pivoted within the journal box is a double armed pawl to engage each clutch. Each pawl has a finger on its outer face to engage the adjacent ends of two coil springs seated one above the other below the pawl. The sprocket is loosely mounted on the journal box or sleeve and is attached to it for driving by a set screw, or pin, and notch engagement which furnishes a slight circumferential play between the two.

Near one end of the sleeve is a fixed brake bar to which are secured the two ends of the strap of a band brake surrounding the sleeve. An eccentric pawl clutch is attached to the brake band so as to rest on the sleeve.

When the vehicle is being driven forward in a straight line both ratchet pawls engage for direct transmission. In turning a corner the vehicle is driven by the inside wheel, the clutch of the axle section of the outside wheel over-running its pawl. When the sprocket is rotated backward for reversing the drive the eccentric pawl of the brake rides on the sleeve and thus tightens the brake band upon it. The sprocket continues its backward rotation to the limit of the notch and pin engagement between it and the sleeve and in so doing pushes the driving pawl spring engaging fingers downward to reverse the pawls. The direct rearward drive then commences and the brake pawl releases on its front corner ready for re-engagement should forward drive be recommenced.



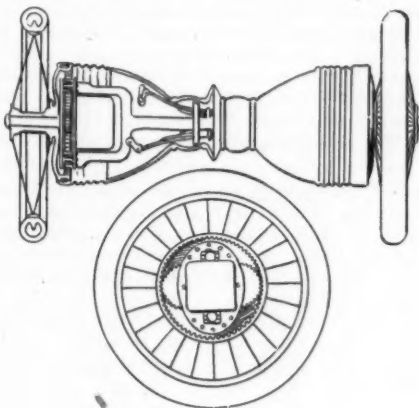
ELECTRIC FRONT DRIVER

Leters patent No. 672,713, dated April 23, 1901, to Enrique Sanchis, of Madrid, Spain.

This Spanish invention relates to the mounting of electric motors on the front axle of a vehicle and to the driving connection between the motors and the wheels. At each end of the axle tree is a rectangular, forked frame within which is vertically pivoted the motor casing. The outer end of this casing carries two plates, spaced apart by cross bolts and which retain in position the armature pinion of the motor and two intermediate spur gears which connect the armature pinion with the internal gear on the inner face of the wheel.

The wheel axle is supported by the outer of these motor frame plates. The motor and wheel are thus adapted to turn rigidly together on the steering pivot. The entire mechanism at each end of the axle and the axle and springs are covered by a spool-shaped casing whose ends run on ball bearings on the peripheries of the

gear rings of the wheels. Near each end this casing has a flexible portion formed of leather or similar material so that it may adapt itself to the pivotal move-



Sanchis' Front Driver.

ments of the motor and gearing frame.

The steering arms pass to the rear through suitable apertures in the casing. The running gear specified in connection with this driving mechanism comprises a single central reach pivotally united to the front axle and braced by oblique rods.



SOME MOTORS TOO LIGHT

Minneapolis, April 27.—To the Editor:—In a recent issue of your paper I noticed an article calling attention to the necessity of using motors of good size on motor cycles for practical all-around usage. I wish to supplement the well drawn conclusions of that article by protesting against extremely small air-cooled motors in automobiles.

Just as at the beginning of the electric motor industry, designers of gasoline automobile motors seem to be carried away with the idea that they must make the motors vest pocket affairs to yield up several horsepowers for every ounce of weight and every cubic inch of size. There will be an undesirable reaction upon this light motor craze unless it is checked by the efforts and example of the more conservative makers who stick to engines fully heavy and large enough to perform the tasks required of them.

Retrenchment along the line of light weight has already shown, in the instance of several experimenting manufacturers, that the small motors are not sufficiently reliable to be placed in the hands of the public for everyday use as automobile horses. Power is required and while it is not necessary to take the idiotic step of some foreign makers who attempt to

AUTOMOBILE PATENTS.

or are persuaded to introduce 35 and 50-horsepower machines, it is necessary in order to attain lasting success, to make a motor which is calculated to furnish 3, 4, 5, 6, 7 or 8 horsepower, large enough and sufficiently well cooled to actually give out that amount of power instead of doing so only on paper and in practice furnishing an infinitesimal amount unable to accomplish the work under all conditions. Our engines are rated high enough, but many of them are not what they are rated.

At an automobile show a light, pretty motor which may be placed on a chair and made to rotate at a high speed without budging from position is a nice thing, and a good thing to sell. But how many of such engines stay sold and sell others by their performances in use?

For everyday practice it is better to have an engine whose castings look heavy and scare the featherweight constructionist, but which will run and keep on running as long as the carbureter delivers the proper fuel. A pound or two or twenty does not make as much difference in an automobile as does a foot-pound or two or twenty of energy. An exceedingly small mule may do more work than a heavy horse, but it is not that way with gasoline engines. The idea that tiny air-cooled motors are little mules is all wrong. They are merely ponies and sometimes balk most frightfully.

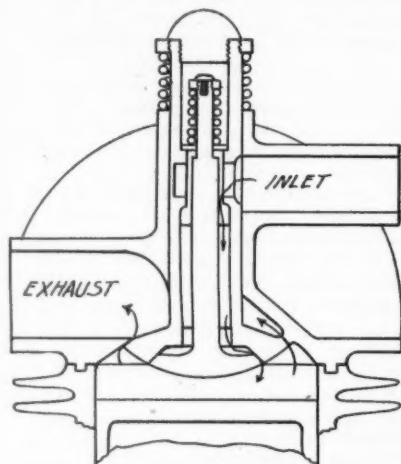
Will it take disastrous and expensive experimenting in many directions to bring about a movement toward common-sense motor sizes or can an agitation be started which will prevent further growth of featherweight design? I am of the opinion that such growth should be brought to a close before it gets way under well, for the ones who suffer mostly from it are the small builders who cannot afford much wasted money in automobile experimenting. The large manufacturers have more discretion in judging between motors. It is the assembler who is attracted by the natty appearance of small, complete motors and who buys only to be disappointed. He does not deserve the trouble he often gets for trusting implicitly in the statements of builders of show window motors.—Very respectfully, Henry Vardou.

NOVEL MOTOR VALVES

Working upon the well known facts that the exhaust valve of a gasoline motor, especially of an air cooled one, is always very hot as a natural consequence of the character of its discharge and that the inlet valve carries a vapor possessing refrigerating quality of no mean excellence, a Frenchman by the name of d'Equivilley has invented and secured a patent for a motor valve system which possesses ob-

vious merit as a self cooling system as well as a convenient construction.

The accompanying sectional view of a motor head shows the construction of these valves. They are concentric, with the inlet valve within the exhaust valve. The stem of the inlet valve is smaller than the bore of the hollow stem of the exhaust valve and is provided at a portion of its length with four longitudinal ribs which guide it in movement up and



The d'Equivilley Motor Valve System.

down within the exhaust valve stem without stopping or hindering the passage of vapor through the space.

It is said that a motor built on this plan has shown remarkable coolness at the head, even when running at a speed of 1,800 revolutions per minute, and that at no time during the course of a long continual run was the exhaust valve so hot but that the hand could be held upon it without discomfort. The inventor claims that this system of interior cooling is much more effective than any feasible method of exterior cooling.

BRIDGEPORT MARVELS

Louis Morris and Charles S. Cole, of Bridgeport, Conn., claim to have made great improvements in the ordinary form of boiler applied to steam vehicles, and have applied for patents thereon. The Bridgeport Boiler Works also has an automobile in course of construction. In a machine shop in the same town there is said to be a device, owned by a number of business men, which insures the automatic feeding of a steam boiler.

Valuable kinks for repairers are plentiful in Modern Cycle Repairs; \$1 to subscribers.



FROM THE FOUR WINDS



HIT THE FLY WHEEL

A representative of this paper recently visited the factory of a progressive automobile maker—no matter which one—and in the course of the visit was ushered into the main factory room to be shown some of the latest kinks in the operation of a completed vehicle standing there. One of these kinks comprised a method whereby the motor could be easily started from the driver's seat. The president of the company, after explaining the principle of the thing to the newspaper man, mounted the carriage to demonstrate its practicability.

"Now watch me start her in a trice," said he. He performed the slight initial function and, lo, he did start "her." Unnoticed by him the driving clutch had been thrown into engagement and the sedate president was of a sudden whirled recklessly through the factory at about ten miles an hour.

The trip was brief, however, although exciting, for before anyone had collected his presence of mind the auto took a strong leap squarely into the fly-wheel of the big stationary engine which furnishes power for the factory. The president removed himself from the auto in record time. The auto bounced back for a fresh attack, some one grabbed the right lever and the Age man inconsiderately laughed. Then the president squared himself and the machine by taking the visitor out for a two-hour trip on the road.



IN THE NEWSPAPER SERVICE

The Grand Rapids Press has put the automobile to good use. Three weeks ago it commenced the delivery of its papers to newsdealers with the aid of a motor vehicle, and now it tells readers that the work is done in half the time formerly occupied. "The auto has met and conquered time in other ways also," says the Press, "such as in the speedy collection of copy, want ads, and short runs to the down-town stations, but it is in the afternoon delivery of last editions to outlying sub-stations that it gets in its best work. The automobile cuts the

seventy minutes formerly necessary for the trip under the horse and wagon arrangement down to thirty-eight minutes.

"When it has made the trip and gets back to the office, no worn-out brute is standing wearily in front of it, longing for oats and a drink of water; no one is overheated; there isn't a speck of foam on the harness, and, best of all, there has not been an annoying delay or an impatient word uttered the entire trip to hurry the thousands of papers along to waiting newsboys and subscribers. The papers get to the sub-stations from ten to thirty minutes sooner than they formerly did, and, of course, they get into the hands of evening Press readers just so much sooner."



NEW TROUBLE FOR "COPS"

This is the kind of weather when the bicycle policeman, riding along the wet asphalt, with the rain glistening on his handle bars, thinks of the cosy headquarters just off the Circle and wonders whether the policeman awheel is really a superior person to the bluecoat afoot or not, says a writer in the New York Commercial Advertiser. The wet weather does not prevent the inevitable tangle of wagons and street cars at the crossings, and it rather encourages than otherwise the drivers who have a predilection for the wrong side of the road.

The bicycle "cop" has to stop and straighten out the one and chase after and rebuke the other. Altogether his job is no sinecure. The writer accompanied one over the Eighth avenue beat the other day when the wind was blowing half a gale. From Fifty-ninth street to Eighty-fourth street he warned three riders that they were riding too fast, sent as many wagons to their own side of the road, and adjudicated a mix-up between three delivery wagons and a man with a wheelbarrow. All of this was done quietly, as in the due course of business.

"Scorchers?" he said in reply to a question. "I don't know what's the matter, but riders don't seem to scorch nowadays. I don't arrest one a month. They

FROM THE FOUR WINDS,

seem to lose their nerve when it comes to cutting by crossings, when they might go slap into a wagon or car. They don't ride fast along this beat. But the automobiles—say, look there!" he said in deep disgust, as a steam machine shot by.

"That fellow was going too fast, but it's no good arresting him. He was within the speed limit twenty feet after he went by, and he'll have to slow up at that crossing. But they make me tired. I arrest six or seven of them every Saturday and Sunday. They seem to think they can get away from anything, and perhaps they would if they had a clear track, but sooner or later the road is blocked ahead, and then they interview the sergeant. McDuffie and that fellow that does the stunt at the circus gave me a hot chase the other day. They had a steam machine and speed to burn, but they met in a tangle up the street aways and I caught them there. It's the steam machines that give us the troubles. They are speedy and quick at getting through a crowded street. The gasolines and electrics don't bother us much."

FOR LONDON'S FIRE BRIGADE

The London fire department has long been a standing joke. The Londoner who has been in America and finds himself walking with an American when a fire engine comes along, finds it convenient to be absorbed in some other matter or lamely explains that the engine is on its way from, not to a fire. The fact is that fires are far less frequent there than here and the necessity of extraordinary speed is not so great. Still the London fire brigade is to have an automobile fire engine. A committee appointed to look into the matter has recommended the purchase of a vehicle made by the Locomobile company, at an expense of about \$1,400.

ONE FROM RUSSIA

The Brookes Motor & Parts Co., 505 Omaha building, Chicago, recently received an order from Theodore Tansky & Co., of St. Petersburg, Russia, referring to its advertisement in this paper and specifying one of the Brookes automobile motors to be shipped immediately that it might be examined preparatory to the placing of an order for 100.

TRULY A GREAT FEAT

A letter from London, dated March 28, contains this interesting item of information: "A well known member of the Automobile Club, Mr. Ballin Hinde,

reached Cannes yesterday at 3:30 direct from Frankfurt-on-the-Main, via Switzerland and the Basses Alpes, a distance of 708 miles, which he covered in 44 hours in a German built 12-horsepower automobile. The weather throughout the journey was terrible. In many places the car rode axle deep in snow, especially over the mountain summits. Mr. Ballin Hinde received the hearty congratulations of the many automobilists who are assembled at Cannes.

BY ROAD TO BUFFALO

The New York Motor Vehicle Co., which has secured space at the Pan American, announces that the twenty-passenger steam omnibus which it exhibited at the New York show will be sent to Buffalo under its own power. The vehicle in question uses kerosene for fuel, is over twenty feet long and eight feet wide and weighs three and one-half tons. Its operation along the country roads and through the towns of New York state should prove one of the best advertisements of the possibilities of automobilism yet devised.

The recently issued Aster motor poster is an excellent proof of the fact that French illustrators can draw most bewitching women despite their inability to create lettering and decorative work up to the standard of American artists. The woman in this poster is all right—is equal in artistic merit to the mechanical merit of the Aster motor upon which she condescendingly rests her hand—it's a water-cooled one. The Waltham Mfg. Co., of Waltham, Mass., which is American agent for the Aster and fits it to Orient motor cycles, is distributing copies of the poster to business friends in this country.

The Stratton Motor Bicycle Co., of 7 Wall street, New York, whose neat machine was exhibited at the late New York cycle show, announces that it will sell its production at \$150, this being the first time a motor bicycle has been placed at so low a figure.

F. W. Cox has assumed the superintendency of the plant of the Milwaukee Electric Co. He comes from a large eastern factory and is well known among manufacturers. The company will occupy its new plant in about six weeks.

The Ohio Automobile Co., of Warren, O., has shipped a machine to William Rockefeller, at Yonkers, N. Y. It is described as the finest machine ever sent out of the factory and the owner has already ordered a duplicate.

Nothing Succeeds Like Success

THE marvel of the year in the Bicycle business is the **WONDERFUL SUCCESS OF THE AUTO-BI**, and this success means the success of the Bicycle dealers. The one is the natural following of the other.

There are hundreds of dealers who are sharing this success, but there are hundreds more who are missing their best chances for their share of the profits.

Bicycle dealers who are yet without our **AUTO-BI** agency are invited to read the following unsolicited letters:

Fall River, Mass., March 2, 1901.

E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—I received my two motor bicycles Thursday evening, and yesterday—Friday morning—we set them up with very little trouble. One of my customers, who had been waiting to see them, purchased and paid me the cash for one of them within a few minutes after a trial ride. He and I then started out for a ride just outside the town, followed by riders of regular bicycles. We of course let on all the power we had, and riding up hills and against the wind, we left one of the most powerful road riders in town away behind. Then we dismounted and waited for him; he came up, with perspiration dropping off the end of his nose. I think that he will be my next customer to order the **AUTO-BI**. I send copy of to-day's Fall River News with my advertisement.

My store has been full of visitors all day to see the new machine. I have had 2,000 envelopes directed to my customers and waiting to send out circulars of the **AUTO-BI** with my next announcement.

Yours truly,

D. W. WILMONT.

Keene, N. H., March 7, 1901.

E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—We wrote you a day or two ago inquiring how soon you could ship us another **AUTO-BI**. Please give this your immediate attention, as we think we have this already sold, and will soon wish a third one started on the way. The first one has created considerable interest, and we think we can sell quite a number here this season, if you can give our orders prompt attention. If you are behind on your orders at the present time, there is no doubt but what you will be much more so later on. We notice by the trade papers that you are making quite a hustle for the trade. We suggest that you call in your traveling men, as you will do well if you take care of the agencies already established.

We are now giving the **AUTO-BI** our entire advertising space, 4x9 inches, which will soon be increased to 8x9 in our daily paper, which will no doubt bring you many inquiries from this vicinity. Kindly refer all such inquiries to us.

Kindly advise by return mail when you can make another shipment, and oblige,

Yours very truly,

Dic. by H. T.

THE WILKINS TOY CO.

Mr. John C. Walch, of Lynn, Mass., in relation to our **AUTO-BI**, writes:

"I have given it some very hard tests. A week ago I rode from Lynn Woods Park Reservation and went up some 15 to 18 per cent grades without the aid of pedals. Also took some 25 per cent grades

E—

AND HERE ARE MORE OF THEM

with a little help. I only got off from Auto-Bi twice, and that being on account of two snowbanks (that had not melted, being in a sheltered spot on lower road) that were over four inches deep. I am rubbing it into your machine, you see, and so far I have not been disappointed, only greatly surprised, as I expected to stick the machine in some of the places I went through. I particularly admire the simplicity of your control."

Albany, N. Y., April 4, 1901.

The E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—The following is the contents of a letter received from Mr. F. K. Robinson, to whom I sold the first AUTO-BI and which was unsolicited:

Albany, N. Y., April 4, 1901.

Dear Sir:—Everything is O. K., and I have been showing the machine up to good advantage. It works as fine as silk. I have been to Troy, Lansingburg, and all around. In all I have covered over two hundred miles to my entire satisfaction.

Yours,

F. K. ROBINSON.

The third machine arrived O. K. this morning, and I expect to deliver it to the party ordering same this afternoon.

Yours truly,

R. H. ROBE.

New York, April 6, 1901.

Messrs. E. R. Thomas Motor Co.

Gentlemen:—We are enthusiastic over the Thomas motor, and want you to know it. The engine is all right. We are much impressed with its power, and the way it runs is certainly most fascinating, and for our own personal use we feel much the same about it as we did when we first began to ride a bicycle. We want to congratulate you on having such a good thing both mechanically and commercially, and we hope that our business relations will always be mutually pleasant and satisfactory. We are very enthusiastic, and when people are enthusiastic they always work hard.

Yours truly,

SIDNEY B. BOWMAN CYCLE CO.

St. Paul, Minn., March 2, 1901.

Gentlemen—Yours of 2-23 at hand, and contents noted. We have a Thomas motor, 1½ I. H. P. But what its actual power is I do not know; we find it just the thing for general business and pleasure use.

It will climb any of our regular hills without the aid of pedal, if properly managed (which is the whole thing) as we find it. The power is all that is needed for the average rider for above use. I have ridden it from 4 or 5 miles per hour to between 25-26 for a short distance, say 1½ to 2 miles, which is our only chance to speed at present, on account of poor roads. The small motor needs no care to speak of, and does not heat much.

There are some who see it say, "I want a 2½ or 3 H. P.," but they have never ridden it. As we see it, the small motor will travel further and faster in a day, and for everyday use, than the large ones, and give less trouble in the hands of the public. You will find some who can use the 2¼ or 2½ H. P. motor for speed and hard riding, but they must be good motor men.

That is what we think about motors, but we may be wrong; they are the lines we will follow until we find it is wrong.

Yours truly,

WAGNER CYCLE CO.,

B. B. Bird.

[This letter was sent to a prominent bicycle manufacturing concern that wrote to Wagner Cycle Co., asking its experience with our outfits.]

Lockwood Bros., Jackson, Mich., under date of April 22d, write:

"Our Thomas AUTO-BI is a crackerjack. It goes ahead of our expectations. As a hill climber it cannot be beat."

AND STILL MORE

April 13, 1901.

E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—Replying to yours of April 11th, will say that we think the Thomas AUTO-BI is all right, and we are beginning to sell some of them. We have placed them with parties who had no previous knowledge of gasoline motors, and they are getting along very well with them.

We believe there is going to be a growing demand for motor cycles and the business will continue to grow every year. Of course a motor cycle is a thing that a little experience with will help a man along with a great deal. We know more about them than we did at first, and they are working better for us than they did three months ago, when we first took hold of them. If there is any further information that we can give you we shall be pleased to do so.

Dic. H.

Very truly yours,

J. W. HALL & SONS.

E. B. KUNKLE & CO.

THE KUNKLE LOCK-UP POP SAFETY VALVE.

Fort Wayne, Ind., March 7, 1901.

Dear Sir:—I am in receipt of your letter of the 2d inst., and in reply beg to state I received the AUTO-BI a few days ago, and tried it to-day and find that it is all right. I rode all round on the downtown streets, and it seemed to please all who saw me operate it, and there were a good many people gazing at it, as it is a new thing and attracts a good deal of attention. I think you ought to be able to sell a good many here. As soon as the weather gets pleasanter I can test it more thoroughly, and I think I will like it very much. Yours truly,

W. D. BOSTWICK.

H. B. Hart, of Philadelphia, in a letter dated April 15th, has this to say about his experience:

"Easter Sunday we tried to make a record between Philadelphia and Atlantic City, but the weather was so bad we gave it up at Hammonton, half-way to Atlantic City, and again the weather was against us, but the bicycle behaved beautifully, and we had two motor cycles competing with us. We distanced them completely, and at Hammonton, thirty miles down, our Mr. Taxis waited half an hour for them to catch up, and at this point, the rain setting in, the party turned back, and again we did not accomplish our object, but we had the satisfaction of showing that in this instance, at least, the Thomas AUTO-BI was superior to the motor cycle.

"Yours very truly,

H. B. HART."

Charles E. Peterson, Woodbridge, N. J., writes under date of April 3rd, as follows:

"The AUTO-BI runs fine, never was out of order, and I like it very much."

Mr. D. B. Munro, of the Acadia Electric Light Co., at Wolfville, N. S., writes under date of April 20th as follows:

"The AUTO-BIS came to hand yesterday and they have covered a good many miles. They are simply elegant machines and I am naturally very much pleased with them."

Hoffman & Robinson, of Newark, N. J., under date of March 18th, write:

"We are willing to vote the motor a great success. There were many propositions which we have had to conquer which could have been easily understood had your letter of instructions been fuller in detail. We have made a very favorable impression for this machine all over Wayne County."

AND STILL OTHERS

Mr. H. B. Hart, our agent at 828 Arch street, Philadelphia, Penna., writes, under date of April 3rd, as follows:

"We know the machine is entirely practical and no trouble to learn. It's great. Our Mr. Taxis recently tested it on hills, riding out to Willow Grove and back, and it took the hills beautifully, without any pedal assistance. There is no question of its practicability, and if you want anything of the kind, you want the Thomas AUTO-BI, because it is farther advanced than any, and more reliable."

Calkins & Post, of Middletown, Conn., under date of April 17th, write:

"The AUTO-BI received by us a few days ago is proving very satisfactory. Although without a particle of knowledge as to the working of an engine or machine of any kind, the writer has been able to master this machine within a very short time after receipt of same. In fact, have had practically no trouble with it, and the same is running very satisfactory."

Mr. C. G. Quigley, Philadelphia, Penna., in a letter under date of April 4th, writes as follows:

"After I have seen and ridden one of your Motor Bicycles, I take pleasure in saying that I pronounce it the best in its line on the market at the present time."

The Susquehanna Cycle & Repair Co., of Williamsport, Penna., under date of April 19th, write:

"We have received AUTO-BI O. K. The machine has proved very satisfactory, and in the very near future we expect to duplicate our order."

J. R. Vosburg Co., of Johnstown, N. Y., under date of April 18th, writes:

"We like the machine very much, and think there are a few sales in the air a little later."

Lockwood Bros., Jackson, Mich., under date of April 22nd, write:

"Our Thomas AUTO-BI is a crackerjack. It goes ahead of our expectations. As a hill climber it cannot be beat."



AS MAKERS of the AUTO-BI we know its grand value, and these letters prove that our claims are stronger than we ever put them. * * * *

If you are a dealer who has not yet closed an agency with us, can you read the above experiences and continue to miss the profitable opportunities we present to you, as vouched for in these letters? Write us about it at once. We want to hear from you without fail. * *

E. R. THOMAS MOTOR CO., Buffalo, N. Y.



CURRENT AFFAIRS IN THE CYCLE TRADE



AFTER a year of uncertainty it has been settled that the factory of the National Cycle and Automobile Co., of Canada, one of the rival trusts of the Dominion, shall be located at Hamilton and nowhere else. That fact has no doubt been known to the company for a long time, but it has been made public by means of a suit brought by the company against a syndicate of Hamilton business men to recover a balance, alleged to be due, on a bonus promised the company for locating in Hamilton.

The company is the one in which the A. B. C. was so largely interested and whose stock it sold some months ago.

The Hamilton men entered into a contract with the company to locate a factory there, and agreed, in consideration therefor, to pay to the company a certain sum of money by way of a bonus. The company started the factory and the syndicate made part of the payments, but then there was a stoppage of operations, due, apparently, to a lack of certainty on the part of the company's officers, whether they would locate their factory at Hamilton after all. On account of this delay the syndicate refused to continue the payments.

The company then commenced suit. In their defence the members of the syndicate said the factory was not finished at the time the suit was commenced; that the delay had resulted in serious damage to them and they asked that, instead of being compelled to pay any more money, the court order that they be given a lien on the property for the amount of money they have already expended. The amount at issue was \$14,975.

Finally the matter was settled by agreement. The syndicate paid the company \$4,650. The company agreed to give employment to from 400 to 1,000 men and not to manufacture outside of Hamilton. These were the points which the defendants claimed to be afraid would not be carried out, so apparently the matter ended satisfactorily to all concerned.

SANGER HOPES TO CONTINUE

Walter Sanger, of the Sanger Mfg. Co., which failed early last week, ex-

presses the hope that his concern will be able to make a settlement with the creditors and continue in business. He admits, however, that the failure was caused by excessive competition, and that, although his company has done a good business, so far as bulk is concerned, there had been no money in it. He thinks the company owns some good patents.

REPORT CONCERNING THE A. B. C.

A report recently circulated in Toledo to the effect that the A. B. C. was on the verge of dissolution has been strenuously denied. The local press quotes Col. George Pope as saying: "The attitude and co-operation of the stockholders of the company, and its unquestioned standing in the financial and business world sufficiently refute any criticism upon its management."

EFFECT OF BACKWARD SPRING

Syracuse, N. Y., April 29.—It is the opinion of Syracuse dealers that the boom in the trade is going in streaks. "Bad weather," said one of the manufacturers, "has a worse effect than would be supposed. If a man has \$50 he is not going to buy a bicycle when the roads are impassable. He waits and may be invests his \$50 elsewhere and by the time he is ready for a bicycle and can ride it, he has not the money. So we are the losers. If a season starts off with good weather it is a great thing for bicycle men. The business is somewhat streaked this year. We have not much luck selling bicycles in Pennsylvania, while they are going well in New York and the New England states. Some of our agents write that there is two feet of mud where they are traveling and they can't sell a machine."

A. W. Doll, G. W. Carmer, Jr., and L. L. Bretz, who have been connected with the Bretz Cycle Mfg. Co., sailed Friday for Costa Rica, where they will seek their fortunes. L. L. Bretz is a younger brother of J. S. Bretz, who is at the head of the Bretz company. The emigrants will develop a land grant of 2,000 acres upon

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which they will raise rubber. They will also do a general trading and export business. Their spare time will be given to the interest of the Bretz company and they will look after their agencies in that section.

It is expected that there will be a revival of racing in this city. Archie Hughes is the local representative of the N. C. A. and has secured the track at Kirk Park. Local companies will do all they can to encourage the sport, as they think it will be a great help to business.



SMITH BEATS THE BANK

There has been an interesting fight between Edward F. Smith, of Newport, Ky., and the German National Bank of the same place, over the business of Smith & Brown, who, until six months ago, were making cycle lamps and building up a good business. Then Brown, who was also cashier of the bank, left town suddenly and has not since been located. His accounts were short and the bank got after his share of the lamp business, incidentally wrecking it, for a time at least.

The bank sought to show that there was an agreement between the partners that all the money advanced by Brown was to be repaid out of the profits, and failed. The matter was referred to a commissioner, who holds that the money was put into a partnership not as a loan, and that the bank will have to take one-half of what remains after the creditors have been paid, dividing equally with Smith.

There is also a story afloat to the effect that an offer of \$50,000 has been made for the patent, but if this is so the bank will be unable to claim any part of it, having been unable to show that the patent was the property of the partnership.



TO MANAGE GOODRICH INTERESTS

Arthur E. Lumsden, formerly of Chicago, later of Buffalo, will become the general European manager of the interests of the B. F. Goodrich company. Lumsden commenced his business career with the Chicago branch of the Pope Mfg. Co. He needed the job and needed it badly. He had no more visible qualifications for the job than any of the other boys who replied to the advertisement, but he happened to let slip the information that he was of Scotch descent. So was the manager and so the other boys were dismissed in a hurry and Lum. was installed as handy man and jack of all trades.

It took him a few months only to dem-

onstrate that he possessed the right stuff. His manager Bob Garden, now in the automobile business in Philadelphia, loaned him a bicycle as a reward for his close application to business during the day. The Pullman road race, then the big event of the year, was coming on and Lumsden concluded that he could do as well as anyone else. Meanwhile he had secured an evening job which kept him employed from the time he left the store until ten o'clock, so that all the training he managed to get was riding to and from home. A confiding handicapper, who afterward "soaked" him many a time and oft, gave him a fairly long start and he won the race. His fortune was made. He rose rapidly, became a full-fledged salesman and, in due course, was offered the management of the Goodrich store in Buffalo. There he has been ever since and so good use has he made of his time that he is to be entrusted with the responsible position above indicated.

In leaving America Lumsden will take with him the best wishes of a host of appreciative friends and the benefit of a lot of experience gained through contact with Howard E. Raymond, manager of the company, who has spent a lot of time over there on business and pleasure.



RUSHING THE SEASON

A lot of grumbling has been indulged in lately over what people characterize as the backward condition of the weather. It is a good sign. As a matter of fact the weather, though wet as compared with most seasons, has not been backward. The temperature has been above the normal. The fact is that with renewed interest in cycling and automobilism there has come a demand for the kind of weather suitable for the practice of those pastimes. Owners of machines are desirous of making the best possible use of them and are therefore impatient. That impatience, so evident in all directions, is therefore a healthy sign.

The fear that the season will be spoiled is not well founded. It is barely time for the out-door season to commence. In other words, we have been attempting to "rush the season."

Those who remember the Pullman road race in all its glory will recall the fact that the promoters were never sure of good weather, even as late as the last day of May. A number of those events were run in weather which called for heavy overcoats. The first race over the north side course was a fine example.

And yet, before the close of April, people are bewailing the fact that the summer has not put in an appearance. From May 1 to the end of the riding season is

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a far cry. Why commence to complain and fear a failure of business because the season, in response to the hopes of the impatient, declines to revolutionize the laws of nature?

RIDERS AND DEALERS COMBINE

Good feeling exists between the cyclists and dealers of Minneapolis and to add to the friendly sentiment the members of the Flour City Cyclists have tendered to the Minneapolis Cycle Trade Association the use of their new club house for its business meetings, an offer which has been gladly accepted. The first of these meetings will be held this month and to celebrate the occasion a musical programme and other entertainment will be provided.

AN EXAMPLE TO FOLLOW

This paper has many times urged upon men in the trade the necessity of setting a good example to the world by practicing what they preach and riding bicycles. It is pleasing to learn that Col. George Pope, one of the finest members of the well-known family of cycle makers, travels every night and morning, between his home at Orange, N. J., and the depot on a bicycle, and where he could walk from his house to one station in five minutes he rides to another station two miles away. Although he has reached the time of life called "middle age," the colonel is vigorous and agile, and he counts this as due chiefly to 20 years of cycling.

TWO KINDS OF JOBBERS

There are in the trade, as the natural results of the shifting of scenes and scenery in the cycle drama of the last ten years, two classes of jobbers of materials and sundries. In the first place, however, it is well to note that jobbers are as a whole of a different character from those who graced the trade a few years ago—not personally, for many are the same people, but as business houses representing a different sort of traffic.

Whereas four or five years ago each supply house was selling agent exclusively for certain lines of goods, now almost every jobber in the country handles all lines of standard products, although, of course, each may feature in advertising some lines in whose sale he is especially interested from a profit or contract standpoint. Jobbers now conduct stores at which almost anything made for the bicycle trade may be purchased and the trade of the individual retail dealers and repairmen is in the form of clientele, each jobber selling to a certain number

of retailers who purchase all or nearly all of their goods from him.

Aside from this change in the jobbing business is the distinct branching of the supply trade into two separate classes, as first mentioned. This is due to the demand in the cycle trade for side lines.

Jobbers on one hand have sought to increase the scope of their business, without seeking patronage other than that of the retail cycle dealers, by adding to their respective stocks, or sources of stocks, lines of specialties which sell well in cycle stores and which the cycle dealers call for or are likely to purchase.

Jobbers on the other hand have stuck to their original line of bicycle supplies mainly and added thereunto in one direction only—the automobile field. In so doing this class of jobbers has in nearly every case proceeded as though the addition of automobile building and repair supplies were the natural outgrowth of the cycle industry rather than the result of a desire to increase the selling field.

Hence there are jobbers who have supplemented their cycle lines with sporting goods and other side lines, and jobbers who have added automobile furnishings to the sum total of their stocks. There are few instances where the two moves to increase business have combined and these few are represented by hardware firms handling continually all forms of specialties.

As to which is the wiser course for the bicycle supply firm to follow comprises a knotty question. There is profit in handling cycle side lines and there will be big profit, undoubtedly, in handling automobile supplies. There are representative houses in both branches of the jobbing trade development and it cannot be said truthfully or accurately that either class has the "bulge" on the other. Probably they will continue to exist side by side, and perhaps they will eventually overlap the fields of each other until a line of distinction can no more be drawn. The jobber with the cycle side lines may introduce automobile materials into his business and the jobber with the auto tendencies may pick up side line trade as an additional reinforcement to his position in commerce. At any rate both courses are profitable, fair and progressive.

DEALER WANTS CATALOGUES

Lee Smith, of Dallas, Ore., who claims to do nine-tenths of the business in his town, would be glad to receive catalogues from makers of all sorts of goods in the cycle line. He draws trade from practically all the towns in his county, Dallas being the county town and situated in the heart of the county. He built a new

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place lately, figuring that it would be large enough for several years, but has already outgrown it. He reports that the cyclists and athletes are building a five-lap track which is expected to boom the interest in cycling.

SARCASM?

It is stated that a class is about to be started at the Coventry Technical Institute for teaching the art of cycle construction. This seems a very judicious proceeding, and the department ought to have special attractions for the rising young mechanics who hope in future years excel in the bicycle trade and assist in maintaining their country's pre-eminence in the face of foreign competition.—English Cyclist.

STUBBORN FACTS

While so much is heard of the revival of interest in cycling, it is pleasing to note that there is something tangible to show that the revival is not all guesswork or all imagination. The commissioners of Fairmount park, Philadelphia, have for years kept the number of cycles and other vehicles passing into the park, and it is now reported that the number has been greater this spring than at the same time for the last three years.

OF ALL SAD WORDS, ETC.

Here is a pretty little fairy tale from a Detroit paper. The reader will bear in mind that the bicycles of the time referred to were velocipedes, weighing about 150 pounds, that the rims were of wood and were not grooved for round tires and that the best time for a mile ever made on them might possibly have approached 5 minutes. Aside from these few little matters the story may be true and in any event is interesting:

It was in 1856 when the first bicycles seen here were shipped to Detroit from the Woods factory in New York. They were heavy, unwieldy things, made of hickory, with gas-pipe frames and wooden rims bound with thin iron tires. Very few were purchased here, owing to their cost—\$75 at the time—weight and unwieldy shape.

In 1867 Captain Partridge, who was at that time the keeper of the Partridge Inn, at Walkerville, became enthused with the American idea of a velocipede, and began working out a design of a machine which would be lighter and easier to handle. Early in the following year he had made in a carriage shop at Malden a velocipede with a forged steel frame, 38-inch wheels and a long, easy steel spring saddle which

took up most of the jar of riding on the hard steel tires. All bearings were brass journals carefully polished to make them run easy.

That year young Partridge came to Detroit, and in a few months had lent a zest to wheeling which added many to Detroit's growing bunch of velocipede owners. Races were held, and in 1869 Partridge challenged any rider in the country to meet him in a race for \$100. He made his fastest mile in 3 minutes, which was considered nothing less than marvellous in these days. It was an interesting sight to see him on the track pounding out a 3-minute gait in the extraordinarily peculiar position necessary.

At that time in Detroit there were a few owners experimenting with various schemes for improvement of their cycles. Young Partridge came within an ace of landing the most important discovery made in tire construction in the whole history of bicycle construction. For several weeks he worked quietly at home trying to successfully patch together the ends of a hose pipe in such a way that it would hold wind.

"It was my idea that if it could be done and the pipe fastened by a clincher rim to the wheel I could pump the pipe up with a pneumatic pump my father owned, and I would have an easier wheel. Rubber cement was not easy to get, and I had a hard time," said Capt. Partridge. "Finally my friends got onto the scheme, and every one made fun of the idea, telling me that the hose would wear out as fast as tires could be made. I began to believe them, and finally abandoned the idea. I lost a fortune, no doubt, for within ten years a native of Ireland did carry out my very idea, and gave the world the first air-tube tire."

THE POLICEMAN'S VIEW

A Greater New York cycle "cop" had his first experience with a motor bicycle last week. He discovered it at the corner of Broadway and Berry street, Brooklyn, where it was turning out to make for Bedford avenue. The officer "hooked on to it" and followed for half a mile in conversation with the operator. Then the officer began to puff and his head went down lower over his handlebars. "How fast is it going?" asked the man on the motor. The policeman replied with a gasp, "About fifteen miles an hour, I should say."

"That shows what a poor idea of speed cops have," said the rider. "I have got it set to low speed now and at its utmost it cannot go more than 11 miles an hour. We are going at about nine miles an hour now. Wait a bit and I will show you what 18 miles an hour is."

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The motor cycle rider cut his machine loose. The "cop" did not last a block on an up grade before up went his head and he leaned back to wipe his forehead. A young man with rams' horn bars and a confident look on his face hitched on behind the motor and essayed to follow it up the hill. He, too, soon sat up and then fell back and joined the "cop," who asked him what the trouble was.

The scorchier replied: "Why, the danged thing does not give you any let up. I could follow an ordinary bicycle at that clip and faster, but that was too much for me uphill." The cop laughed and said that this agreed with his experience. "It was not the speed, but the steadiness that killed me off. The power driven cycle kept going all the time, up hill, and down, whereas an ordinary wheelman making pace would slacken speed at times and then the follower could rest."

The motor machine did not run far at its high speed and the "cop" was too much interested in studying the proposition to think of making an arrest.

GETTING FRENCH TRADE

The impetus that has recently been given to exportations from the United States, and the zeal that American exporters are showing to increase their trade with foreign countries, make necessary certain suggestions for their assistance, writes the Commercial Agent of the U. S. consulate at Limoges, France.

This consulate—and it is presumed other consulates also—is flooded with requests from American citizens for information and aid in extending their trade. The form of the requests is generally that names and addresses of firms interested in particular branches of commerce in which the writers are engaged be furnished by the consul, or that their catalogues, which are often sent in large quantities and usually lack sufficient postage (which must, however, be paid to the French postman), should be distributed by the consular officer.

The parties making these requests are as a rule entirely unfamiliar with the country and its requirements, and, if the consul makes any suggestions that are contrary to the manufacturer's preconceived idea, his word is considered unsatisfactory.

It is pleasant to give satisfaction to those who ask, and doubly so when the interests of one's country are advanced. It is therefore respectfully suggested that American exporters desiring to extend their foreign business comply with the following conditions before they take the trouble to send catalogues, etc., to European countries.

The American exporter must understand the wants of the market he desires to enter and supply before he can find purchasers. It is no proof or reason that because a certain article finds a ready sale in the United States, it will sell abroad. Many articles popular in America are unsalable in France, and vice versa.

Every catalogue, business card, etc., that is to be distributed in France must be in the French language; weights and prices must be expressed according to the metric system and in francs. No dealer, either wholesale or retail, is going to translate any documents or push American articles unless he is richly paid for the trouble. An ounce, bushel, yard, pound, and mile carry no meaning to the ordinary Frenchman, and he would prefer to pay more for an inferior article described in familiar terms and language than to bother trying to decipher a paper in an unknown tongue and with unintelligible weights, measures, and currency. Not only should the French language be used, but catalogues must be attractive to insure their being read.

Any deviation—even an unintentional deviation—in the shape, style, or color of the wrappings, or any difference in the goods delivered from those shown, is very apt to awaken suspicion in the mind of the foreign purchaser, although no wrong may be done or intended; exact conformity to samples, on the other hand, always inspires confidence.

When presenting bulky goods, the seller should be careful to give the purchaser a definite idea as to the probable costs. If a French buyer can know that the merchandise will cost so many francs per 100 kilograms in New York, and that the freight to Havre, Bordeaux, Marseilles or any other French port will be a certain sum on a given date, with an average price for a year, he is enlightened on the very points that he wishes to know before considering the purchase. Sales may be made more readily in this way than otherwise.

The exporter is advised to state that the price given includes cost, freight and insurance. It is also wiser for the seller to insist that the buyer shall pay the customs dues, dock dues and inland charges (if any), because the consignee can make better terms than the foreigner can ever hope to make.

There is published in France a commercial directory called *Le Bottin*; copies of this book may be found in the libraries of nearly all large American cities and in many of the important hotels in the United States. *Le Bottin* gives names and addresses of manufacturers, dealers and merchants in the several departments of the country, which are classified according to trades, professions, etc., in the

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various cities and towns of France. Exporters will find this an aid in trying to extend their foreign business; if they care to examine this directory, they can easily find out the names of persons apt to be interested in their line of trade, and if they desire further information concerning the French dealers, the consul of the district in which these people live can readily give any information about them that he may be able to obtain.

The solvability of merchants, manufacturers and dealers in France is perhaps more difficult to ascertain than in the United States, but general data can be gotten in most instances without much trouble. All banks in France will give information as to any house or firm required for a small fee—from 25 to 75 cents for each person.

If the foregoing suggestions are followed time will be saved to the exporter and consul and much useless correspondence avoided.

It is reported that Oscar Hedstrom, the old racing man, has built a motor cycle at the factory of the defunct Worcester Cycle Co. Hedstrom is employed by the Hendee Cycle Co. which may adopt his new model.

At a recent meeting of the Davenport (Ia.) Bicycle Dealers' Association it was decided to keep open on Sundays and to hold a road race on Decoration day. A. N. Rust and Hugo Vollersten were appointed a committee to manage the race.

On the request of the chief of police for an opinion the corporation attorney of St. Paul has decided that all dealers in second cycles must take out a second-hand dealers' license. The police hope that the decision will help them to locate

Walters Bros., of Austin, Minn., cycle dealers, have commenced to manufacture automobiles in a small way and will also make motors for bicycles. stolen machines.

The National Cycle Mfg. Co., of Bay City, Mich., will make an exhibit at the Pan American. It has produced a machine to be known as the Pan American National.

At a sale of abandoned articles in the hands of the Denver police a number of bicycles were sold at 90 cents apiece. They must have been of the high variety, though the fact is not stated.

The dealers of Huntington, Mass., have reached an agreement to close their stores every evening except Monday and Saturday.

The police commission of Atlanta, Ga., recently decided to increase the cycle police squad and have since placed an order for thirty-five additional machines.

The business of Hine-Watt Manufacturing Co., Chicago, was burned out last week. They manufactured bicycle lamps. The damage was covered by insurance.

RETAIL TRADE MISCELLANY

The entire stock of R. G. Hall, Fairmont, Neb., was destroyed by fire last week.

J. C. Sample, Downs, Kans., has sold out his business. He handled furniture and bicycles.

Isaac N. Savage, hardware and bicycle dealer of Berrien Springs, Mich., has sold out his business.

S. A. Feay, of Rock Rapids, Ia., has sold one-half interest in his bicycle and hardware business.

Harvey M. Mainwaring, of Bridgeport, Conn., has retired from the cycle trade and gone to Philadelphia.

Caleb Hall has retired from the firm of Manning & Hall, Gypsum, Kans. They handle bicycles and hardware.

The firm of W. S. Cox & Co., Silver City, N. M., have dissolved partnership. They handled bicycles and hardware.

The Kane Bicycle & Supply Co., of Kane, Pa., has just issued a new catalogue of bicycles and sporting goods.

E. F. Birdsall has sold his interest in the firm of E. F. Birdsall & Co., Evart, Mich. They handle hardware and bicycles.

Gilbert Olson has purchased the bicycle business of H. C. Prudhomme of Washburn, Wis. He will add a repair department.

The John R. Vosburgh Co., of Johnstown, N. Y., has secured the local agency for the Thomas Motor bicycle and has received samples.

RETAIL MISCELLANY.

The business of J. F. Wohlbuter & Co., has been dissolved. They handled agricultural implements and bicycles at Albert Lea, Minn.

Koehlinger & Baur, of Fort Wayne, Ind., announce that April has been a record breaker in the matter of sales. In the first three weeks of the month they sold sixty-four machines.

Will J. Scott, who for the last two years has conducted a cycle store at Albuquerque, N. M., has sold it out and gone to Marine City, Mich. He will not re-enter the cycle trade for the present.

The assessors at Springfield, Mass., have decided to exclude cycles from their schedules heretofore, having found the value so low and the trouble of collecting so great that the effort does not pay.

W. H. St. George has purchased the business of the Framingham (Mass.) Cycle Co. He already operates one store in the city and will continue his new purchase under the management of Harry White.

The following new establishments for selling and repairing cycles have been reported during the week: Dennis Kennedy, Glen Falls, N. Y.; Thorp & Carey, Bay City, Mich.; Mark R. Rummery, Oregon, Ill.; C. F. Townsend, Gillman, Ill.; E. F. Stimson, Akron, N. Y.; Fred Mars-

den, Pascoag, R. I.; B. N. Middaugh, Slaterville Springs, N. Y.; Fred Austin and D. L. Field, Machias, Me.; S. S. Wheeler, Pittsford, Mass.; William Mertens, Maywood, Ill.; L. D. Rose, Two Harbors, Minn.; Frank Jones, Raceville, N. Y.; F. W. Vandewater, Peterborough, Ont.

The owners of the Worcester (Mass.) Coliseum are trying to secure a tract of land at Milford whereon to build a six-lap track. The new track, if built, will be in sections. There will be racing by electric light at night.

J. F. Starbuck, one of the most popular riders of his day, who was fearfully injured by a fall at Baltimore, is about to start a jewelry business in that city. He will purchase his stock with money raised for him by popular subscription and the remnant of his savings from his earnings on the track. His leg is still entirely useless.

Few changes have taken place during the past week in the cycle trade. The following changes of ownership have been recorded: F. A. Mason to H. H. Redfield, Smithport, Pa.; Klinot & Weiss to Robert Weiss, North Ontario, Cal.; J. F. McGriff to Line Bros., Atlantic, Ia.; Plank & Keefe to G. W. Plank, Laird, Minn.; Russell & Pease to Russell & Strong, Stephen, Minn.; Fred More to F. H. Marshall, Stamford, N. Y.; James Wipin to Roy Claxton, De Kalb, Ill.

EXPORTS OF CYCLES AND PARTS

	MARCH		Nine Months Ending March		
	1900	1901	1899	1900	1901
United Kingdom	\$52,761	\$87,870	\$508,337	\$394,048	\$253,514
France	25,077	40,069	320,080	180,332	96,801
Germany	52,884	28,824	792,290	322,959	113,952
Other Europe	97,459	61,263	1,048,336	515,134	303,578
British North America	75,861	57,691	338,412	205,308	173,725
Central American States and					
British Honduras	94	516	4,684	2,335	4,016
Mexico	764	1,415	38,016	19,208	14,569
Santo Domingo	21	26	226	237	337
Cuba	9,885	1,161	8,101	137,804	11,447
Porto Rico	173	.....	1,951	1,969	.....
Other West Indies and Ber-					
muda	4,498	5,346	49,063	39,251	37,921
Argentina	6,862	78	149,731	135,940	11,447
Brazil	1,942	841	46,692	23,141	8,454
Colombia	69	79	5,719	5,950	399
Other South America	5,884	3,138	38,079	54,777	23,414
Chinese Empire	4,280	1,472	20,340	22,957	10,802
British East Indies	8,232	5,954	125,750	92,060	41,255
Hong Kong	630	122	6,330	6,075	7,349
Japan	31,561	15,126	99,206	175,392	154,716
British Australasia	15,108	21,345	207,918	175,489	156,332
Hawaii	11,451	.....	27,708	33,880	.....
Philippine Islands	2,934	5,996	430	14,778	62,175
Other Asia and Oceania	2,012	85	25,662	36,899	18,978
Africa	2,459	4,083	140,266	50,020	79,137
Other countries .....	.....	79	576	89	219
Total	\$412,486	\$342,569	\$4,101,873	\$2,551,032	\$1,596,431

BUDGET OF BICYCLE INVENTIONS

THE GRADUAL change in the character and status of the bicycle industry is not followed by the course of the bicycle invention spirit as manifested by the inventions which issue from the patent office. While there are no longer many patents of a practical nature which encompass more than details of bicycle construction and shop processes, the number of patents for queer machines and odd driving mechanisms continues in about the same ratio to the total number of patents issued weekly as years ago, and the sum total of bicycle patents granted is still far less than the previous totals than would be expected in consideration of the almost standardized status of cycle design. Hundreds are still looking for that world-beater.

WEDGE COASTER BRAKE

Letters patent No. 672,610, dated April 23, 1901, to Charles O. Barnes, of Buffalo, assignor of two-thirds to Jesse B. Eccleston and Harrison M. Angle.

The entire brake mechanism is contained within the hub barrel and the brake parts are so arranged that the machine to which it is applied may be trundled backward.

The hub is mounted on ball-bearings of usual construction. The left cone, however, is not threaded on the axle but slips to place and is attached to a retaining arm whose forward end is secured to the rear fork tube by means of a detachable clip. The right ball cone is formed integrally with, or secured to, a rotary sleeve surrounding the axle and whose outer portion is enlarged and extends beyond the end of the hub to form a seat for the sprocket wheel, the latter being rigidly fastened in the usual manner. The rotary sleeve is also provided with an inside ball cup whose row of balls runs on an axle cone which furnishes adjusting means for the entire set of hub bearings.

Mounted non-rotatably on the rotary sleeve and fastened by lugs which engage longitudinal slots in the sleeve is a cam ring, shown in section in the detail view of the accompanying illustration.

This ring is provided at its inner and outer edges with spiral or oblique cam faces which rise in opposite directions. The ring is retained upon the sleeve by a nut screwing upon the inner threaded end of the sleeve and binding against the inner face of the ring.

Between the outer face of the cam ring and the inner face of the hub ball cup is interposed a loose clutch ring which extends into an annular taper socket in the cup, the outer face of the clutch ring being tapered to correspond, and the inner face being formed with cam faces to engage those on the outer face of the cam ring. These cams trend in the proper direction to cause the clutch ring to be wedged into the hub cup socket when the sprocket is rotated forwardly, thereby compelling the hub and wheel to be driven ahead.

Seated against the back of the hub ball cup at the opposite end and rigidly affixed to the hub barrel is a brake surface of vulcanized fiber, or other suitable material, which has a conical or tapering bore. The brake shoe to engage this surface is a conical piece held against forward rotation. Between its head and the cam ring on the rotary sleeve is a loose auxiliary cam ring with cam faces to engage the contiguous cam faces on the main cam ring. The inner face of this auxiliary ring is conical and fits into a corresponding socket formed in the large end of the brake cone.

When the main cam ring is turned rearwardly by corresponding rotation of the sprocket wheel, its inner cam faces cause the auxiliary cam ring to be shifted laterally toward the brake cone, thereby forcing the cone into its friction sleeve. The auxiliary cam ring is prevented from being rotated backward in unison with the main cam ring by a spring, which bears at its ends against both rings respectively, and tends to press the auxiliary cam ring against the brake cone which frictionally resists backward rotation of the cam ring.

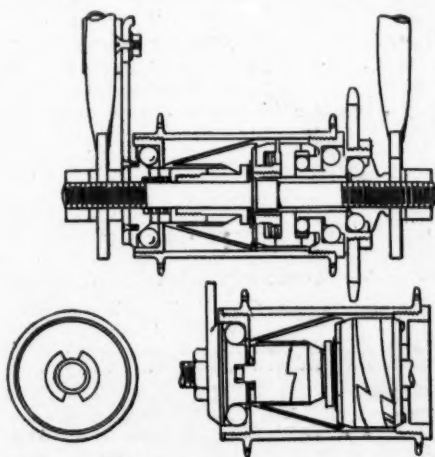
In order to hold the auxiliary cam ring out of contact with the brake cam when the bicycle is being propelled forward, so that there will be no unnecessary fric-

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tional resistance to overcome, the shoulders at the rear ends of the contiguous cam faces are under cut. These oblique shoulders, by their cam action, withdraw the auxiliary cam ring clear of the brake cone when the main cam ring is turned forwardly, and upon back pedaling to apply the brake the shoulders of the main cam ring recede from those of the auxiliary ring and allow the spring to press the latter into frictional contact with the brake cone, which will then hold it against backward rotation. Similar under cut shoulders in the driving clutch cams effect the withdrawal of the clutch ring from the hub ball cup socket when back pedaling to apply the brake commences.

Between the outer face of the main cam ring and the inner face of the hub ball cup is a row of balls to relieve the clutch ring of the thrust of the main cam ring and to reduce the friction between these members to a minimum when free-wheeling.

The brake cone is mounted on a clutch which comprises two collars on a sleeve fitting the axle loosely. The sleeve is provided at its inner end with an annular flange which is seated in a corresponding socket in the large end of the cone. The outer clutch collar is connected with the sleeve by a right hand screw thread and is provided with a head adapted to abut against the end of the sleeve. The inner clutch collar is provided with a tapering or conical inner end which bears against a corresponding seat in the bore of the brake cone. The contiguous ends of the clutch collars are formed with engaging

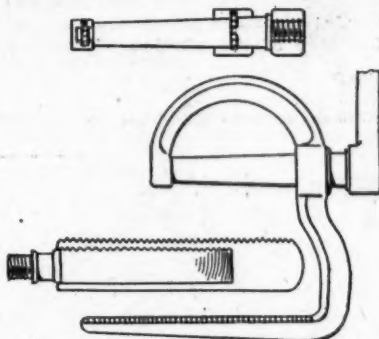


Barnes' Coaster Brake.

cam faces with abrupt rear ends or shoulders.

The inner clutch collar is free to turn to a limited extent, but the outer one is

held against rotation in either direction by a tenon at its outer end which engages a recess in the stationary ball cone of that end of the hub. This connection, while holding the outer collar against ro-



Braddock's Combination Pedal.

tation, permits it, the inner collar, the sleeve and the brake cone, to slide upon the axle. A spring is interposed between the inner face of the stationary ball cone and the outer face of the outer clutch collar, tending to press the conical end of the inner clutch collar against the internal conical surface of the brake cone. In this position of parts the brake cone is held against forward rotation. The pressure of this binding engagement of the brake cone is not positive, but is sufficient to cause the brake cone to hold the auxiliary cam ring, by which it is operated, from turning backward with the main cam ring when back pedaling is commenced.

When the brake cone is wedged into the fiber friction sleeve in applying the brake, the brake cone is first turned forwardly with the sleeve and hub. As the inner brake cone clutch collar is held in frictional contact with the cone by spring pressure it is caused to turn forwardly also, and hence its cam faces will ride outward on those of the outer clutch collar and tightly bind the brake cone between its inner conical end and the flange of the sleeve, thus stopping rotation and applying the brake, allowing the braking friction to exert itself between the brake cone and its engaging sleeve.



COMBINATION PEDAL

Letters patent No. 672,698, dated April 23, 1901, to Isaac A. Braddock, of Had-donfield, N. J.

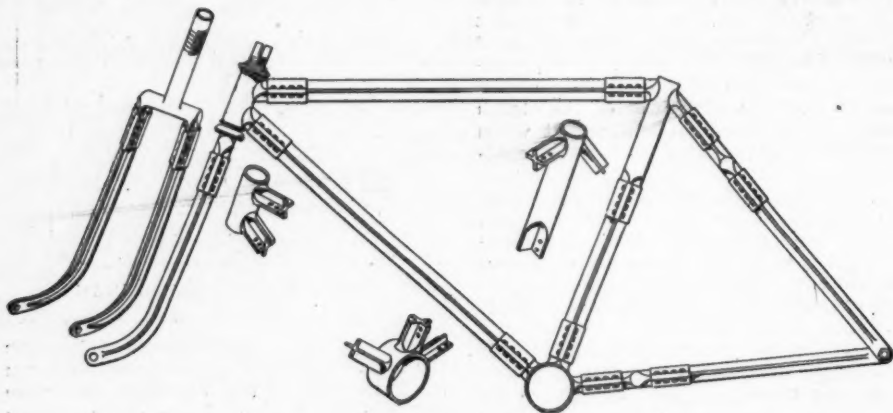
The pedal which comprises this invention is a combination rat trap and depending swinging pedal which may be interchangeably used as either without alteration or adjustment. It comprises a pedal barrel which has a semi-circular pedal

BICYCLE INVENTIONS.

frame on one side and a right angled projection on the other.

One edge of both the semi-circular and the angled side frames is saw toothed to afford a foothold when the pedal is used as a rat trap. When it is used as a swinging pedal the rider places his foot on the inside face of the portion of the angled

members, instead of being steel tubing, are bars of iron or steel, preferably cruciform in section. These are detachably secured to the connections by means of numerous bolts. The only stated or evident object of the invention is to provide a frame which can be taken apart for package in shipment and to render the



MAYERSON'S IRON BAR FRAME.

frame which is parallel to the barrel. The ball races shown and described in the patent, and which are reproduced in the sectional view of the accompanying illustration, do not argue well for the mechanical excellence of the pedal. Semi-circular races which are filled with balls through a hole in the outer member of each bearing are hardly desirable features in a pedal.

replacement of a broken or otherwise injured member easy. The illustration shows clearly the construction specified by the patent.

✻

Letters patent No. 672,533, dated April 23, 1901, to Henry D. Lefebvre, of Alpena, Mich. Steel spring tire calculated to catch much mud and profanity in the course of use.

HARVESTER CONSTRUCTION

Letters patent No. 672,738, dated April 23, 1901, to Abi Mayerson, of Philadelphia. The invention comprises a frame whose

Letters patent No. 672,656, dated April 23, 1901, to Pardon W. Tillinghast, of Cranston, R. I. Laced base saddle. The application for this patent was made in 1896.





CYCLING SPORT AND PASTIME



BELOW is the story of the Major Taylor-Grogna match race at Verviers, Belgium, April 18, in which, as reported by cable briefly last week, the major defeated the famous Belgian sprinter handily:

Paris, April 19.—The match between Grogna and Major Taylor yesterday, at Verviers, marked an important date in the European career of Taylor. On this exceedingly rough track, the difficult riding of which is familiar to Grogna and on which the little Belgian had never been defeated, the black champion won where Jacquelin, Tommaselli and Meyers were defeated.

There is no longer any doubt as to the exceptional sprinting qualities of the American crack. He has in him the ability to make him the new Zimmerman for whom we have waited. Just like Zimmerman it is probable that he will now go from triumph to triumph. From Germany to Belgium, from Belgium to France, from France to England, he will go and everywhere demonstrate his supremacy.

In the Berlin race he jumped his competitors and kept his eight lengths' lead to the finish. At Verviers, yesterday, in the first heat with Grogna, he made a steady, slow gain near the finish and in the last heat quickly overhauled the Belgian who had jumped him splendidly, and passed him like a shot when close to the tape. Like Zimmerman he knows how to race to win under all circumstances. Protin, an old timer who is extremely careful in forming and expressing his judgment said yesterday: "Jacquelin is the only rider who can even pretend to defeat this man."

A much larger crowd than is usual at a week day meet assembled at the Verviers track to witness the match. In the first heat Grogna took the lead and held it until the bell when the major made a slight effort to get a better hold on the bars, but did not start to sprint until the home stretch was entered when he easily passed the Belgian and won by two lengths.

In the second heat Taylor had the pole and took the lead, bending low over his

bars. Fearing a surprise he gradually gained speed until the 500-meter mark when he ran up the bank and with a sudden rush jumped down to the pole with a lead of three lengths. Grogna, however, was on guard and in less than the length of a stretch was up with the colored boy. In the middle of the last turn both began their sprint and a splendid fight, elbow to elbow, followed until within thirty meters of the tape when the negro unaccountably wobbled and swerved so wide that Grogna was permitted to go through and win.

When the men came back for the final heat the excitement became intense. The major was smiling and joking, full of confidence. At the pistol neither started and at the second shot both showed the same inclination to hold back, although they started at a speed of about five miles an hour. The crowd did not like these tactics.

In entering the first turn of the last lap Grogna rode up the bank, followed by Taylor, who stuck close to the Belgian's rear wheel. In the back stretch Grogna made a feint to sprint, but the major refused to be caught. Ten yards further, however, Grogna made a jump and gained one length. Taylor was after him quickly and caught him at the last turn and entering the homestretch started his final sprint. Grogna kept well up and the fight was exciting. At fifty yards from the finish Taylor showed how easy it was for him by shooting ahead and winning, sitting up, by two lengths.

After dismounting, Taylor said: "Grogna is an excellent rider. I admire him. He uses his head and is better than Arend, who rides badly."



RACE PLANS IN QUAKER CITY

Philadelphia, April 29.—The announcement was made last week that M. J. Costa, who handles Wolff-American, National, Yale and Explorer bicycles here, has leased the Woodside Park track for the coming season, opening the ball with a Decoration Day meet at which the feature will be an hour's motor-paced race

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in which Archie McEachern will go against Charley Church and two other men, each of his opponents to ride 20 minutes.

Interest in the twenty-five-mile handi-cap road race is becoming greater with each succeeding week, and the prospects for a big entry list are excellent. This affair is under the joint management of the Associated Cycling Clubs and the local Cycle Board of Trade. A big list of prizes will be hung up, and the race is the topic of conversation among the flyers, both club men and unattached. The selection of a suitable course is causing some trouble, it having been definitely decided not to hold the race on the triangular Holbrook course, owing to the sharp turns and the distance from the city.

At the fifteenth annual banquet of the Century Wheelmen the other night the movement to revive the time honored Newark-Philadelphia century run was successfully launched. Over half a hundred names from the Century Club alone were handed in to the organizers, and all indications point to a run which, in point of numbers, will fall but little short of the most pretentious effort of former years. No date has been selected as yet, but it is almost positive that the second Sunday in June will be decided upon, the riders training to Newark the afternoon before, as has been the custom in previous years.

THE MAJOR'S PROGRAM

The dates and places definitely settled upon for the remainder of Major Taylor's races in Europe are as follows:

May 2, Bordeaux, France; May 6, Nantes, France; May 16, Princes track, Paris (match with Jacquelin); May 20, Glasgow, Scotland, and May 25, Edinburgh, Scotland. One date, for Vienna, has not yet been decided. Thus Taylor, although refusing to ride on Sunday, has more engagements scheduled than any other rider in Europe.

EARLE'S TRIP TO MILWAUKEE

Milwaukee, Wis., April 29.—H. S. Earle, president of the L. A. W., was in the city Saturday, and had a consultation with division officers. He appointed Louis Pierron chief consul to succeed P. B. Champagne, and W. W. Jackson, of Eau Claire vice consul. F. G. Cramer, secretary-treasurer, will continue in office.

Mr. Earle made many friends while here and accomplished much good for the Wisconsin division. About a dozen Mil-

waukeean attended the session, which was held at the St. Charles Hotel. Among those present were Louis Pierron, F. G. Cramer, M. C. Rotter, Otto Dörner, W. O. Briggs and Oscar H. Morris.

The main object of Mr. Earle's visit was to discuss the debt owed by the division to the national body. The debt amounts to \$447. Former Chief Consul Champagne was in hopes that the national body would drop the debt, and he went so far as to make request in that direction. Mr. Earle said that if the division would secure about twenty life members the debt would be canceled. Four life members have been secured in Milwaukee and three more will be forwarded before the close of next week.

JACQUELIN STARTS POORLY

Jacquelin, the French champion, who is to be Major Taylor's hardest competitor in Europe this summer, made his first appearance in competition this season at the opening race meet in Turin, Italy, April 14, 18 and 21. He did not make a good showing against Ellegaard, Momo, Gascoyne, Tommaselli, Jenkins and the other cracks present, as he had had but very little training and was hardly in shape.

Ellegaard won the principal event of the first day's meet, defeating Del and Ferrari in a 2,000-meter scratch race. In the second race, of the same distance, Momo won from Gascoyne and Jenkins.

On the second day there were run the four trial heats of the big international sprint race. The qualifying winners of these heats were Ferrari, Jenkins, Momo and Jacquelin, Ellegaard, Gascoyne and Tommaselli being among those defeated. In the heats of the second international scratch race neither Jacquelin nor Momo qualified. In a consolation qualifying race Momo won from the Frenchman and in the final Gascoyne won from Ellegaard with Bixio third and Momo last. Bixio won the consolation race from Jenkins.

THE SPEED MERCHANTS

New York, April 28.—Real spring with real sunshine at last. The bad weather has so put back work on the new track at Vailsburg that the opening has had to be postponed until May 15th. It is just as well perhaps that it was, as only a bunch of persevering professionals and a few hardy amateurs have braved the rain and mud on the roads to get into even passable condition for the early meets.

Chairman Batchelder cabled yesterday that he would sail for home on the Deutschland on May 3 and bring with him Edouard Taylore, the French middle

SPORT AND PASTIME.

distance champion, who is to make his headquarters at Baltimore and be the pace following star at that and the Washington track.

Eline, of Eline & Klosterman, called on your correspondent last week and said that the new tracks at Baltimore and Washington would be ready for racing about May 20. Owing to inability to get the desired ground their Philadelphia coliseum scheme had to be abandoned and the Quakers will get all their racing at Woodside Park.

Batchelder as yet has made no announcement of his engagements of foreign riders, preferring to wait until the team of invaders is complete and all signed.

The local Yale agents are active. In New York Johnny King and Floyd Krebs, the professionals, will be on Yales, and in Brooklyn M. L. Bridgeman has persuaded such well known riders as Ray and Waters, of Columbia university, and Schreiber, Sullivan and the Welsing brothers to choose Yale mounts.

W. S. Fenn, last year's amateur champion, will sign with no maker and ride independently.

Road racing will also show signs of the revival of cycling; for the Irvington-Milburn will again be run and the Philadelphia associated clubs have decided to revive the famous Philadelphia-Newark hundred-mile handicap.

Brady will open Manhattan Beach the middle of June and the Kings County Wheelmen will run their twentieth annual meet at the track by the sea the last Saturday in June. Powers & Kennedy have an option on Ambrose Park, where night meets are in contemplation.

Davis & Bushfield contemplate Sunday racing at Guttenburg. Joe Harrison has already secured a sanction for a meet at Asbury Park on Decoration Day.

Fred Voigt last week secured the lease of the New Haven coliseum for night meets.

PIONEER AT HIS OLD TRICKS

Quite like that of old times must be the experience of Bob Garden, of Philadelphia, whose name appears at the head of a list of committeemen appointed to take charge of a Decoration day road race. It was Garden who organized the Pullman road race and made it the most celebrated event of its kind in the world. The race is to be promoted by the Associated Cycling Clubs and the Philadelphia Cycle Board of Trade jointly.

WILL INSPECT CANDIDATES

Aroused by the mayor's veto of an ordinance, which had passed the council,

giving them the right to use some of the sidewalks of the city, the cyclists of Salt Lake have held a meeting and organized the Wheelmen's Protective Association. It is estimated that there are 8,000 cyclists in the city who are voters and they propose to make themselves heard in municipal affairs. One of the clauses of the constitution pledges the club to oppose candidates for city offices whose records show that they are opposed to cyclists and the members pledged themselves to abide by it regardless of political creeds. If the club proves as aggressive as the attendance at the first meeting warrants one in believing, it will assuredly prove a power in local affairs.

SUIT FOR DAMAGING PATH

Cortland, N. Y., April 29.—The sidepath commission of Cortland county will bring suit in the Supreme Court against W. A. Smith, commissioner of highways, W. L. Bean, pathmaster, and the town of Cortlandville for \$500 damages for the destruction of a section of the cycle path. The above named men have been arrested and will be tried also in a criminal court. The trouble will serve to establish a precedent in deciding whether a highway commissioner has the right to tear up sidepaths. A short time ago the highway commissioners thought they would widen the road from Cortland to McGrawville and they ripped up about twenty rods of the sidepath in order to carry out their intentions. They refused to restore the sidepaths after they had finished widening the road and the sidepath commissioners decided that they would test the question in the courts. They say that they have expended a large amount of money in building the sidepath and they are going to see whether or not it can be torn up with impunity. Both sides claim that they will appeal the case to the highest courts, so there will be a good chance to test the law.

CYCLE PATH DOINGS

An attempt was made to hold a meeting of cyclists at Salem, Ore., last week, for the purpose of taking action to secure cycle paths. At the last moment some of the leaders of the movement were unable to attend and no meeting was held. Another attempt to get the cyclists together may be made, for the cycle path feeling is strong.

The Great Falls (Mont.) Cycling Club was recently organized at a well-attended meeting in that city. Howard Oakland is president of the club and Arthur Hayes secretary. One of the first things the

SPORT AND PASTIME.

club will give attention to is the construction of a cycle path.

A proposition is before the council of Omaha to tax cyclists fifty cents a year, the money to be spent on cycle paths. It is likely to be passed at the next meeting.

CENTURY RIDERS ACTIVE

The strength of the membership of the Century Road Club is one of the most remarkable things connected with cycling. The members seemed determined to hang on long after those people who went in for rational cycling had given it up for some other form of amusement, and now, with the revival of cycling, they are as active as ever. York state division has announced that it will hold its opening run on May 12, and will issue silver medals to all who finish inside

LINCOLNS MOVE TO WEST SIDE

The Lincoln Cycling Club, whose home has been on the north side ever since it was organized, ten years ago, has deserted its old stamping ground and taken a lease of the house formerly occupied by the Illinois Cycling Club, at Washington boulevard and Francisco street. The quarters are superior to any the north-side club has ever occupied, for the house was built especially for the I. C. C. and contained all that an ideal clubhouse could be expected to contain. The property is owned by Fred W. Morgan, of Morgan & Wright.

THE BICYCLE CLUBS

The St. Paul branch of the Century Road Club held the opening run of the season last Sunday. At the appointed hour more than 100 riders were at the starting point. They were joined, later, by a number of Minneapolis riders and the excursion, which occupied the entire day, was declared one of the most enjoyable in the history of the sport in St. Paul.

The Multnomah County Bicycle Association has been formed at Portland, Ore., with the avowed intention of securing the construction of cycle paths.

The Denver Wheel Club, which already has, in its quarters, seating room for 1,200 persons, expects to lease two lots adjoining its club house and build thereon an addition to its gymnasium.

It is announced that the seventeenth annual race meet of the Kings County Wheelmen of Brooklyn, N. Y., will be held on June 29. The club was organized in 1884 and has never missed this important function.

The Wabash (Ind.) Cycling Club celebrated the thirteenth anniversary of its birth on the thirteenth. There were thirteen charter members. Now there are 191,—not bad for a sport which is supposed to be in a state of decay!

Minneapolis cyclists will ask that a part of the boulevard to the Lake of the Isles be turned over to them for a speedway. A portion of it is given up to horsemen for that purpose and the cyclists think they are entitled to similar consideration.

The Jacksonville (Ill.) Wheelmen, one of the oldest clubs of the state, is in prosperous condition, financially and physically. The club house affords facilities for bowling and other recreations and is well filled every evening. There was an election of new members lately, resulting in the addition of ten to the list.

AREND HERO AT BERLIN

At Berlin, April 14, Arend won an open sprint race from Seidl, Mundner and Heering. In the handicap tandem race Peter and Kudela (50 meters) won from Huber and Seidl (scratch). The tandem pursuit race was won in five laps by Arend and Heering from Seidl and Huber.

CYCLING IN SOUTH AMERICA

On his return from a trip to South America a representative of an eastern exporting house says that cycling is now, and has been for the last three years, the most popular of all out door sports.

In the larger cities of Brazil and Argentina the sport is at the height of its popularity, and, although the women at first were in doubt as to the propriety of riding in public, they quickly followed the example of some of the social leaders, who boldly went in for the sport, and now there are as many petticoats a wheel as there are knickerbockers.

Buenos Ayres, perhaps, is the greatest cycling center in South America. There, at certain hours of the day, the entire city seems to be a wheel. There are some fine roads leading to beautiful parks in the suburban districts, and along these, as well as in the parks, the procession of cyclists in the early morning and the afternoon hours is a long one.

The racing end of the sport has developed rapidly of late, according to this traveler, and he is of the opinion that there is material there today capable of giving the fastest men in this country all they want to do to stay in front.

HELD UP BY A WOMAN

Archie McEachern and Bobby Thompson, the speedy Canadian cyclists, had a

ROAD RACING IN FRANCE.

few experiences recently which convinced them that this town is not a haven of brotherly love, says the Philadelphia Item. Woodside Park was closed, so they had to take to the roads for their training rides. They went out about twenty miles, with a fair wind and nothing to annoy.

On the way back a fierce man rushed out of a little house by the roadside and grabbed at McEachern's arm as he flew past. The man missed him, but he nipped Thompson's coat-tail and whirled him to the ground. Bobby got up and asked why. The man cursed. Bob and Archie punched him many times.

As they rode on they wondered why the man rushed at them, and finally guessed that he was a turnpike tollgate keeper. They then discovered that they had come without a cent in their pockets. They rushed the next gate, but had to fight hard to get through the third. At the fourth they found a woman keeper, who would not let them through free, so they took to the woods, lost themselves, and after hours of wandering, jogged slowly

over the mud road into the city, where they were arrested for riding after night-fall without lamps.

In connection with the president's western trip San Jose, Cal., will hold a flower carnival and two days of cycle racing. The latter will take place at Athletic Park on May 14 and 15. The Californians hope to secure competitors of national reputation.

At a meeting of the Canadian Wheelmen's Association on April 24 it was voted to reassume the control of cycle racing in the Dominion. A. E. Walton, of Toronto, was elected president and D. J. Kelly will officiate as chairman of the racing board.

The annual Golden Wheel paced race at Berlin, which Harry Elkes won last year, will be run on the Friedenau track over a course of 100 kilometers, May 12. The winner will receive \$500 and a gold medal valued at \$100. During the first hour there will be seven lap prizes distributed.

AUTOMOBILE ROAD RACING IN FRANCE

FOR nearly six months now the French, and particularly the Parisian, automobilists have been separated into two factions represented by two clubs, with the subject of road racing as an issue. One party, the Automobile Club of France, has taken a decided and almost bitter stand against road racing, road races, road racers and road race promoters, while the other big organization, the Automobile Union of France, has staked its views and its actions in the support of the opposite cause. The wrangle on the subject is sharpened by the newspaper work of the rival papers representing the respective clubs.

Thus the problem of whether road races are good for the industry or detrimental to both the motor industry and sport has grown to considerable magnitude and reflected itself upon our own shores in the form of newspaper and club discussions of the question. Of course the actual influence one way or the other of the French situation upon the American automobile trade and sport is bound to be very slight, as our views and final control of the matter will be mainly regulated by our own experience in and with road races and road tests.

It is also probable that the subject will

never reach the point of intensity to which it has been brought in France. Our road races are properly road tests and the practical lack of actual road races at high speeds will prevent antagonism toward them.

People seldom raise objections to things which do not exist. As long as there are no 50-mile-an-hour competitions on American roads we shall be almost immune from heated discussions on the road race question. The shaping of the proposition in France is, however, interesting in the light of its effect upon the motor industry of the world. A recent summary of the situation with conclusions favorable to road races, drawn by an observer of the French controversy and of French road races is a letter to the New York Herald from its Paris correspondent, as follows:

Much has been written, and still more ink will be spilled, on the subject of automobile races. Some commend them, others condemn them, and yet they continue to prove their vitality not only by interesting the press and people of all classes but by taking place.

It is to be regretted that of late this question has become one of club or personal rivalry. It is supremely unjust to

ROAD RACING IN FRANCE.

be for or against racing because one belongs to a certain party, and one can but deplore this manner of reasoning, based not on facts, but on affinities, which end as a rule in sophisms.

One has a perfect right to be for or against racing, but an opinion should not be formed without having thoroughly studied the subject in all its phases.

I think that the question should be looked at both from a past and present point of view, and if one asks whether automobile races up to the present day have helped in a marked manner to develop this industry, the unanimous reply would be, "Yes."

Having studied the reasons for approving these races, in a past sense, I have asked myself the same questions with regard to the future, and have minutely examined every argument for and against their maintenance. This done, I have come to the conclusion that automobile races should be continued.

In five years—from 1895 to 1900—this industry has done what no other industry did before it, and has given, both as regards quantity and quality, results which one might justly call fantastic—results which will never be repeated, excepting perhaps by aeronautics the day when aerial navigation has been solved.

And to what has this sudden and spirited development of automobilism been due? To two principal factors; it was adopted and launched in sporting circles—that is to say, by society people; it afterward became popular in the upper middle classes. And these two successes were due to racing.

The first automobile race, that organized by the *Petit Journal*, was one of the most phenomenal causes of the development of this industry when in its mere infancy. From that moment even the peasant was struck with the idea of the possibility of one day being able to make use of this new method of locomotion. That was the germ of popular success.

At the same time the ideas of society people traveled in another direction. Society saw in automobilism an entirely and absolutely new sport, destined to test in a marked manner the sang froid, science and energy of its votaries. It had the attraction of a kind of terrestrial yachting—more interesting, more independent and much less expensive.

After society people, the general public came in. What could be more enticing than the prospects of road contests in pure open air, and the intense pleasure of passing a less speedy competitor or one who had fewer mishaps than one's self?

This feeling caught on and automobilism grew.

Who among chauffeurs does not remember the phantasmagorical race from Paris

to Amsterdam in which, I believe, fifty-six competitors took part? This was a revelation. One saw six and eight horsepower tourist carriages, carrying four persons, going merrily over the six stages of this international route, and this with but few breakdowns and not a single serious accident. From that day Belgium and Holland were converted to automobilism. In the four days occupied in crossing these countries more good was done to the automobile industry than could have been obtained by "swamping" these kingdoms for six years with advertisements.

And what pleasure we chauffeurs had ourselves. With our small carriages—not the monsters of to-day—we had not only crossed two frontiers and admired glorious scenery, but the enthusiastic reception given us by Belgians and Dutch alike will remain forever imprinted in our memories. People crowded around us at each arrival point, questioned us as to our speed, incidents on the road, etc., and went away convinced. They had nothing to doubt; our very presence in their midst proved the veracity of our words.

In all the races which took place during this period one found, in varying degree, the same impression, and it is scarcely necessary to point out that the competitions at Nice on the one hand and Pau-Biarritz on the other, were the means of converting many foreigners wintering at these resorts to automobilism.

Whatever may have been said for or against great classic races, such as that from Paris to Bordeaux—the real automobile Derby—this last named contest, far from scaring the populations of villages, townships and towns through which the competitors pass, is looked upon, as I have myself proved, as a holiday fixture. Everybody has been forewarned, crowds assemble, eagerly scan the horizon, clear the way for the racers, cheer them as they pass, and for five minutes each peasant becomes a sportsman. The enthusiasm with which the "services d'ordre" and the local controls are organized are sufficient proofs of this fact.

And from an industrial point of view the result obtained is considerable, for after each race who does not wish to know the winner's name and the make of his automobile? Indeed, I do not think that I shall appear paradoxical when I state that such men as Messrs. Charron, De Knyff, Levegh and Girardot are quite as popular in France as if they had achieved great political or literary honors. Had they been a thousand times better drivers than they are they would never have been known without the races.

So far we have obtained one and a leading point—the enormous influence and benefits obtained through racing from an advertising and propaganda point of view.



INFORMATION FOR BUYERS AND BUILDERS



ONE of the staff of this paper recently stood watching the owner and operator of a steam carriage while the latter was engaged in "getting up steam." The chauffeur was manipulating a hand torch and did not seem exactly pleased with his task. After the burner was well started he turned to the scribe and remarked:

"I wish the blank, blank makers of these machines would equip the boilers with Kelly burners and generators. I have more trouble generating vapor than should be necessary and it does not increase my interest in the game a bit to fiddle around with a hand torch all the time. I saw one of the Kelly affairs at the Chicago show and I mean to have one on this machine before long."

FOR SIDE PATH MAKING

The Stuart Grader Co., of Oberlin, O., not only manufactures road machines of many kinds for the making and maintenance of good roads and paths but now has as one of its regular products a bicycle side path machine. This grader planes and grades a smooth strip at the side of the highway for cycle riding and is also adapted to the construction of permanent paths, while for such repair work as leveling and clearing the path of grass and weeds it is a valuable assistant.

In the company's catalogue of road and path machines is a lot of information about road grading and building with modern machinery, which is of interest to both automobilists and cyclists who take a hand in the present widespread movement for good roads and cycle paths, as it tells how to operate road machines to obtain the best and most economical results.

WILL DEFEND THEIR CUSTOMERS

Three weeks ago this paper contained notice that the Wyoma Coaster Brake Co. had announced its intention to commence suit against a Philadelphia dealer and the Reed & Curtis Machine Screw

Co. for alleged infringement of its coaster brake patents. Last week circular matter was received from the same company to the same effect, but Reed & Curtis, replying to an inquiry from the office of this paper, said that they had no knowledge of any such suit. They have since issued a formal notice to the trade, of which the following is a copy:

Worcester, Mass., April 24.—To Whom It May Concern:—We have received letters from several of our customers saying that they had been notified by the Wyoma Coaster Brake Co. that they had entered suit against us for infringement of the Wyoma coaster brake. We wish to say that this statement is false, as we know of no suit that has been entered against us in this matter, and would further advise each and every one of our customers using the E. Z. coaster brake that we will protect them and stand back of our goods. Respectfully,

Reed & Curtis Machine Screw Co.

HOFFMANS NEARLY READY

The Hoffman Bicycle Co., of Cleveland, has been energetically at work on the Hoffman steam carriage during the winter and expects to have vehicles ready for shipment about the end of June. The company will make a specialty of delivery wagons and road wagons for general use. The company is exceedingly sanguine of the success of its engine and is looking for unusually good results from its vehicles, which are said to be original in more ways than one.

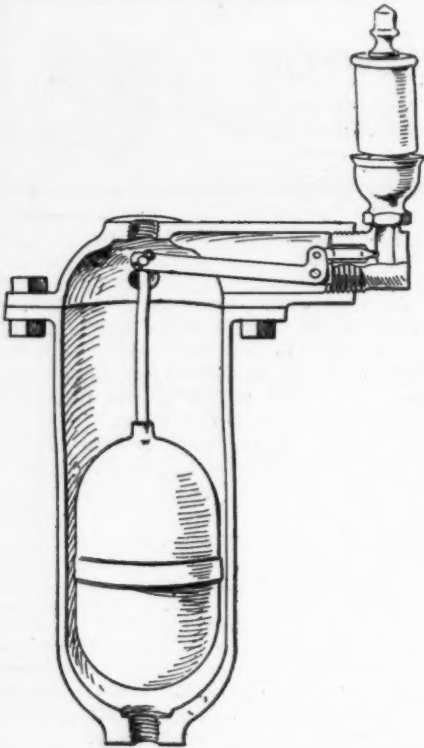
RELIANCE LOW WATER ALARM

The accompanying illustration shows in section the Reliance low water alarm for automobile steam boilers. This alarm is manufactured by the Reliance Gauge Column Co., of Cleveland, and is made upon the same plan and under the same patents as the well known Reliance safety water column for stationary steam boilers, of which there are, it is said, over 35,000 in daily use.

The simple construction and direct con-

INFORMATION FOR BUYERS.

trol of the whistle valve by the water float are clearly presented in the illustration. The alarm is tested to 400 pounds



Reliance Low Water Alarm.

in order to safely stand any high pressure that may be carried in an automobile boiler. While the Reliance alarm is of comparatively recent introduction, several makers of steam vehicles have adopted them as regular equipment and several automobile supply houses carry them as standard goods.

CHICAGO MAN MAKING AUTOS

Once a bank clerk, then for eight years an attache of the engineering department of the city of Chicago and, incidentally, one of the speediest cyclists in Chicago, now general manager of the Peerless Long Distance Co., of Washington, D. C. Such is the record of C. H. Peck, commonly known among a host of friends in Chicago as "Polite" Peck. He designed the famous Czar tandem in 1894. and was possessed of considerable mechanical skill. And so he has drifted into the automobile business along with hundreds of others who formerly owed allegiance to the cycle trade.

The company is marketing a kerosene

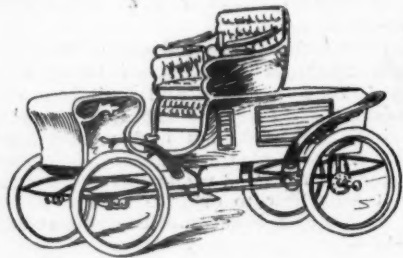
burner for automobiles and yachts, and has just received an order for a number of them from Cape Town, South Africa, through W. H. Crossman, a New York broker. It has already produced a lot of vehicles of various forms and will add a marine department.

The company is supplying the trade and those wishing to build vehicles and yachts 7 and 18 horsepower, marine type, compound engines with patented economical steam distribution, this feature being covered by eleven broad patents. A guaranteed water consumption per indicated horsepower-hour is made and each engine may be tested for economy of operation by the purchaser's own expert before shipment is made. A combined steam boiler feed and air pump, which can be used for inflating tires; a low water alarm column; a feed water heater adding to the economy of operation and increasing boiler capacity; an all steel boiler guaranteed by the Hartford Steam Boiler Inspection and Insurance Co., and which is fitted with dry plate; powerful compound engines; dust proof compensating gear; enclosed chain, and ready accessibility of all parts are a few of the good features claimed for this company's vehicles.

THE DARLING AUTOMOBILE

The above headline is not intended to convey a flippant meaning, as it represents the name of the vehicle manufactured by the Beardsley & Hubbs Mfg. Co., of Mansfield, O., and which name is also that of the inventor and designer, R. R. Darling, who is vice-president of the company.

One of the most conspicuous talking points of the Darling vehicle is that it is made in a hilly country. Its makers believe justly that if it will climb the hills



Darling Combination Stanhope.

in and around Mansfield it will climb almost mountains if not quite. Thus power to climb Mansfield hills has been one of the first requirements met by the designer of these vehicles and his other

A Chain Is as Strong as Its Weakest Link



No. 151 "Diamond" Automobile Chain

Pitch, $1\frac{1}{4}$ inches; width, $\frac{1}{2}$ inches; diameter of rollers, $\frac{5}{8}$ inch; thickness of sides, .125

This pattern has polished straw tempered hard rollers, hard steel bushings (not split), hard rivets, full polished blue 8 sides "chanfered." Its tensile strength is 6500 pounds.

We have been making chains, and nothing else for nine years. Our factory is exclusively equipped for chain manufacture. It is the largest chain plant in the world.

The characteristic qualities of "Diamond" Chains are accuracy, strength, uniformity and finish. Prices on application.

THE AUTOMOBILE AND CYCLE PARTS CO.

DIAMOND CHAIN FACTORY

INDIANAPOLIS, IND.

most noticeable object has been to rid the vehicle of visible mechanisms.

The entire engine and transmission factors are contained within the extension stanhope body which characterizes the different patterns of the Darling, and the rear wheels are driven by individual chains running downward to the hubs. There is thus no differential on the rear axle, the compensating gear being a part of the transmission mechanism within the body.

Several novelties in gasoline engine and carbureter construction, as well as in that of the transmission and speed change gear, are claimed for the carriage. In design the accompanying illustration is expressive of the attention which has been given this item in vehicle building. The vehicle illustrated is a combination stanhope whose touring box may be opened and unfolded to afford a front-facing passengers' seat.

The company issues an elaborate catalogue showing the various patterns manufactured and which speaks well for the enterprise of the concern, whose stockholders are nearly all local parties of good financial standing.

TUBES FOR MANY PURPOSES

Seamless steel tubing for automobile, marine, stationary and locomotive boilers,

hollow shafting, gas and steam engine cylinders, gun barrels and ordnance, bushings, roller bearings, compressed air cylinders, pump cylinders, armature journals and flanged couplings for steam and compressed air pipes—these are some of the many uses for which the products of the new, thoroughly equipped plant of the Seamless Steel Tubes Co., of Detroit, are intended.

The facilities of the plant, which was completed at the opening of this century, cover a manufacturing range of sizes from 1 inch to $3\frac{1}{2}$ inches, while gauges run from No. 16 to $\frac{1}{2}$ -inch. William Thornburgh, vice-president and general manager of the company, says that the work of introduction of the product is progressing rapidly and that everything possible is being done to convey the lasting idea that nothing but the highest class of goods will be produced by the firm. The company issues a small catalogue which contains data relative to the sizes, weights and strength of the different tubes manufactured.

GLINES OUT OF THE FIGHT

The fight between the Buffalo Specialty Co. and its rivals in the manufacture of tire fluids continues with unabated vigor, but the Buffalo concern has just scored a knock-down and makes the most of it in

INFORMATION FOR BUYERS.

this week's announcement. The Glines Liquid Rubber Co. has, in consideration of the discontinuance of suit against it and its customers, withdrawn from the fight and has so notified the trade. The following circular letter, signed by the Glines company, has been received at the office of this paper:

Please take notice that we have discontinued the manufacture and sale of tire fluid for the following reasons: You are undoubtedly aware, from the past controversy, that we have been one of the most aggressive and faithful members of the combination formed over two years ago for the purpose of fighting the Buffalo Specialty Mfg. Co. and its Neverleak tire fluid.

We have paid all dues and assessments of the combination and its attorneys, Steuart & Steuart, and done all in our power to aid them to win; since it has come to light that the Buffalo Specialty Mfg. Co. owns the Curlin patent that covers tire fluid, and since Steuart & Steuart, the attorneys of the combination, by letter directed to us, dated March 28th, 1901, have declined to defend the suits already brought on said patent, we are convinced that the claims of the Buffalo Specialty Mfg. Co. upon its patents are valid and, after seeing friends and customers in the trade subjected to expensive litigation, we believe that the interests of our customers and self-preservation require a recognition of the Neverleak patents and this announcement from us.

We have concluded, therefore, to abandon the fight and recognize the rights and claims of the Buffalo Specialty Mfg. Co.,

Steuart & Steuart, will ultimately fail, if they have not already done so.

We have therefore discontinued the



Good Feature of the Baldner.

manufacture and sale of our tire fluid, known as Glines liquid rubber, as above stated.



NEW MANAGER

G. N. Bierce, founder of the Stillwell-Bierce Co., of Dayton, O., has purchased the interest of J. B. McLardie in the Dayton Motor Vehicle Co., and has assumed the position of general manager of the latter concern. He will devote his entire time to the new business and intends to push the interests of the company vigorously in the lines already mapped out and in several new directions which he has in view. With increased capital and facilities the motor vehicle company expects to become rapidly more prominent in the automobile trade.



STARTED FROM SEAT

One of the principal features of the gasoline carriages manufactured by the Baldner Motor Vehicle Co., of Xenia, O., is the original side steering lever which is arranged to serve as a starting lever for the motor and with which, by simply throwing over a latch, turning the lever outward and pulling it back, the driver may give the motor its initial start from the seat without using the crank commonly employed for this purpose. One of the accompanying illustrations shows the motor being started in this manner. A crank and place of attachment on the side of the vehicle is provided, however, so that the operator can start the motor from the ground if he desires.

Another distinctive feature of the ve-



Starting the Baldner Carriage.

and beg to say to others in the trade that after all this experience we are convinced that the combination and its attorneys,

FISK

TIRES

THE cheap tire rider is not to be envied. From the time he buys his tires until he throws them away in disgust, it's **fret and fuss, puncture and patch, repair and replace.** His lot at the best is a hard one.

The dealer who sells cheap tires is also going to have a hard row to hoe. Perhaps the first season he can pull through by running his repair shop nights. The next year his customers will pass by on the other side.

Wouldn't it be far better for both rider and dealer to pay a trifle more and get **FISK TIRES** in the beginning? The kind that are lively, wear well and always give satisfaction.

FISK TIRES have a long record of service that must influence the thinking rider and dealer. We back them up with our guarantee, too.

Fisk Rubber Co., Chicopee Falls, Mass.

BRANCHES: Springfield, New York; Syracuse; Buffalo;
 Detroit; Chicago; St. Paul; San Francisco;
 THE FISK RUBBER COMPANY, 114 Second Street,
 A. P. SHAPLEIGH MFG. CO., St. Louis, Mo.
 Distributors for Central and Southern States.

**HIGH
GRADE**

**WELL
MADE**

INFORMATION FOR BUYERS.

hicle is the hinged body top. This is also here illustrated. The entire top may be thrown backward, exposing all of the motor and transmission parts.

The company is comfortably located in a well equipped plant and is now completing its first lot of vehicles for shipment. These are in one and two seated patterns and are driven by a gasoline motor of home manufacture and containing several points in its construction for which especial claims are made by the builders. The transmission gear is simple and provides two forward speeds and one reverse.



MOTORS ALSO

The Merkel Mfg. Co., of Milwaukee, has now supplemented the manufacture of its cycle, vehicle and automobile hubs and kindred parts by the production of a gasoline motor for motor bicycles and tricycles. In the design of this motor an effort has been made to keep the crank casing as narrow as possible and the result of this effort is manifest in the fact that the casing is but 2 3/4 inches wide, while the motor is only 3 1/4 inches wide over all. This narrowness permits the use of the motor in connection with a bicycle crank hanger of usual width and chain line. The company is now securing numerous contracts for these motors and expects to soon be able to supply complete motor bicycles and also motors for automobiles.



NEW COMPANY READY

Oswego, N. Y., April 27.—The Steam Carriage Boiler Co. has lately moved into its four story building on First street and has equipped it with new machinery. The company was recently incorporated with A. P. Murdoc as president; L. W. Mott, secretary and treasurer, and C. A. Klitts, general manager. The latter has had a great deal of experience in making steam boilers and some of the improvements in those offered by the company are of his designing. The other officers are energetic young men who stand well in the community. The company will make boilers of special design if desired.



SPALDING LIKES THE KNOX

The little Knox vehicle is reported by A. G. Spalding & Bros. to be meeting with almost as much success in Chicago as it has done at the eastern houses of the firm. Its success in the east has been unqualified, indeed the firm figured at one time on taking the entire output of the Knox factory. James Levy, man-

ager of the department, is also encouraged at the outlook for motor tricycles. He reports that if the public takes to them with anything like the avidity shown by dealers during his recent trip the makers will have all they can do to take care of the demand. The Spaldings handle the Cleveland.



EIGHT HORSEPOWER DE DIONS

There is to be another addition to the DeDion-Bouton family, thus giving the company one of the most complete lines



The New 8-Horsepower De Dion.

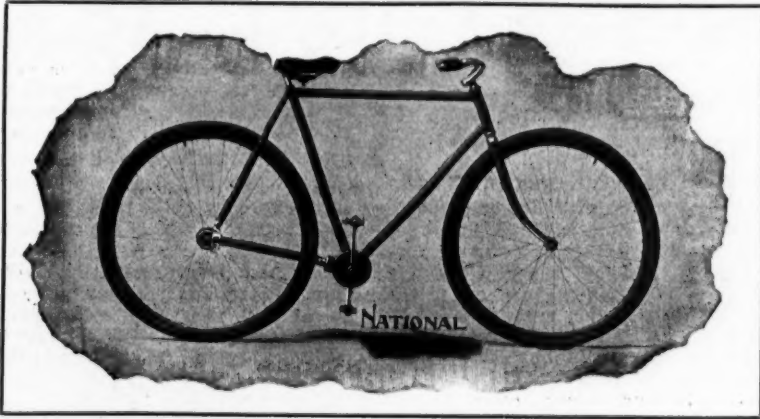
of vehicles in the world. First came the tricycle, weighing in the neighborhood of 300 pounds, and then the quad, weighing from fifty to seventy-five pounds more. Next in line came the Brooklyn type of motorette weighing 575 pounds, followed by two styles of the New York type, running in weight from 775 to 900 pounds. The line will be completed by the introduction of the latest Paris "tonneau" type, weighing 1,000 pounds.

The final arrangements are being made to place the latter on the market. The motor is a genuine DeDion, of eight horsepower, but built under a special arrangement exclusively for the American market.

The company finds that the demand in this country as well as abroad is for heavier powered vehicles and believes that the success of the five horsepower motor, used in its lighter machines, is a guarantee of the success of the latest venture.

This machine has a bore of 100 millimeters and a stroke of 110 millimeters. It weighs 110 pounds complete, without the

The Pan-American National



There is no other Bicycle like it---None so Simple

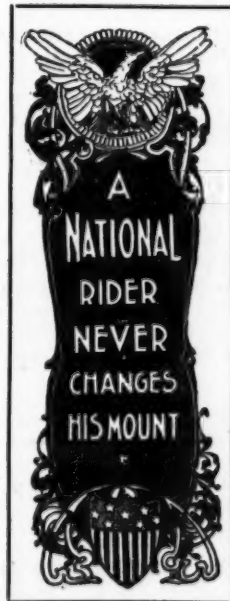
None so Durable

None so Satisfactory

It is the most advanced type of bicycle construction, combining Chainless, Cushion Frame and Coaster Brake features ❁ ❁ ❁

Our customers are enthusiastic and so are we for it's the best National we ever made. It makes former riders riders again ❁ ❁ ❁ ❁ ❁ ❁ ❁ ❁

Call on us in the Machinery and Transportation Building, Pan-American Exposition,
May 1st to November 1st, 1901



National Cycle Manufacturing Co.

Bay City, Michigan

INFORMATION FOR BUYERS.

extra fly-wheel, and 140 pounds including the fly-wheel and friction clutch, the clutch being a part of the fly-wheel.

This new vehicle will be ready for the market about May 15. It will embody all of the latest French ideas in automobile construction, including the latest method of transmission, wheel steering, motor under a bonnet in front, tonneau body, wooden wheels if desired and other features now taking a prominent place in 1901 construction.

SPRING SUIT FOR LOCO

While J. A. Kingman was in Chicago last week he had the pleasure of inspecting a number of changes and improvements in the Chicago store of the Locomobile company. From the new electric sign over the door to the top story of the building there have been improvements and additions. The company now occupies four floors, of which that opening on Wabash avenue is occupied by the offices, salesroom and storage room for the vehicles of customers. New offices are in course of erection. They are to be divided by oak and glass partitions and are to occupy approximately the same space as heretofore. In the front of the store will be reading rooms for visitors. The basement and one of the floors above are to be used for stock vehicles, of which a great number are expected to arrive in a few days. The repair department is on the top floor and there have been installed all the necessary machinery for the production of any part and, indeed, of a complete vehicle, if necessary.

CAREER OF ABRAHAM LINCOLN

An address by Joseph Choate, Ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life—his early struggles with the world—his character as developed in the later years of his life and his administration,

which placed his name so on high on the world's roll of honor and fame, has been published by the Chicago, Milwaukee & St. Paul Railway, and may be had by sending six (6) cents in postage to F. A. Miller, General Passenger Agent, Chicago, Ill.

TEMPLE HOLDS A SHOW

Ralph Temple had a little show all of his own last week. He displayed a line of goods which no dealer west of New York could equal. Temple is jubilant over the promise of delivery of the first Oldsmobiles this week. The destruction of the factory at Detroit was a sore disappointment to him for he had figured on a big business with the gasoline vehicle. His business with National electric is pronounced satisfactory, though he admits that the cold, wet weather which prevailed until Sunday last, had an evil influence on business generally.

MOBILES IN CHICAGO

At the Mobile store, in Chicago, Mr. Pardee, the new manager, now holds forth on the merits of steam vehicles with the assurance of a veteran. A representative of this paper heard him discoursing learnedly to a customer last week and if there is anything about a Mobile he is unable to talk about it would puzzle a veteran to discover the fact. The company has a full line of its vehicles in stock and if back-door appearances count for anything, is placing them in the hands of purchasers with rapidity.

In a circular just issued the Indiana Chain Co. tells some things about its new style of chain. It guarantees that its latest chain will not stretch under 1,300 pounds. A number of testimonials from well-known men in the trade are presented.

A LECTURE ON AUTOMOBILE TIRES

FOLLOWING is a lecture delivered before the Automobile Club of America at a meeting held April 23, by Frederick W. Barker, of the Dreadnaught Tire Co., on the subject of automobile tires. While it contains much which is familiar to the bicycle trade, it also contains much which is valuable and doubtless new to the automobilist, and

expresses opinions of the lecturer which are interesting and instructive. The lecture is as below:

The subject of tires comprises a question of paramount importance to every automobilist.

So far as the art of automobilism is advanced at the present time, we know of certain qualifications which it is desira-

Lest You Forget

We beg to remind everybody in the Cycle Trade that we are the builders of the Pan-American Special Bicycle; that it combines center drive Chainless, Cushion Frame and Hub Coaster Brake; that the gears are Leland-Faulconer and nothing else; that these models stand for all that is up to date, in fact are one step beyond anything ever produced by any maker; that we are the oldest survivors of the Cushion Frame promotion; that we have built more Cushion Frames than all other makers put together; that we are the most progressive designers of new models; that our Cushion Frame experience is the most extensive and our product unrivaled. See us at the exposition.

THE GEORGE N. PIERCE CO.

Buffalo. Boston. New York. Denver. San Jose.

AUTOMOBILE TIRES.

ble our tires should possess, and these, regarding pneumatic tires, are summarized as follows:

1. Good material and workmanship, so that the tire will stand up under its load and air pressure without being liable to burst.

2. The tread should be properly reinforced to prevent punctures, but in a manner that will not detract from its free longitudinal yield, because their compression at the consecutive points of contact with the road, produced by the weight of the vehicle, gives life and speed to the tire.

3. Stability of tread; that is, the reliability of the tread to provide a certain predetermined width of contact surface with the road, irrespective of the amount of load carried or of varying air pressure.

Practice determines the extent of contact most desirable for certain vehicles, according to their weight and propelling power, there being in each instance a happy mean between the too narrow tread that cuts into a soft roadbed and the too generous surface that "eats up energy," as the experts express it.

Of course in ordinary pneumatic tires we do not require to consider a too narrow tread, since a flattening thereof must always occur, no matter what degree of air pressure is contained within the tube.

It is generally admitted that the pneumatic cushion, owing to its great quality of elastic compressibility, is far ahead of all other forms of tires, where pleasure vehicles are concerned. Its ability to absorb vibration, taking up the shocks and jars caused by traveling rapidly over an uneven surface, commend it as unquestionably the royal tire for motor vehicles, whose occupants are on pleasure bent, and who desire the smoothest riding possible. Besides, the life of the more or less delicate machinery used to operate these vehicles renders the absorption of vibration, between the wheel periphery and hub, absolutely necessary.

The advocates of cushion and solid rubber tires laugh at punctures and rim cutting, and say no such troubles arise through their use. But, then, solid and cushion tires are not in the same class as pneumatics. As well compare the race horse, with his highly strung nerves and quivering form, eager to do battle in the sport of kings, with the draught horse, of colossal strength, but using it to haul merchandise laboriously from point to point.

With vehicles of great carrying capacity, and that are required to travel only at a moderate rate of speed, I can conceive that the solid tire is highly suitable, particularly considering the fact that

it has what the pneumatic tire lacks, a center of resistance and homogeneity of structure to sustain the power applied.

In these heavy vehicles having great horse power to propel them an immense strain equal to the sum of the motive energy and the weight of the load to be moved, must be withstood by the pneumatic tire, intermediate its tread and the rim, so that it is easy to see that the manufacturers are confronted with no easy problem in their endeavor to produce a serviceable article.

So severe is the strain to which these tires are subjected that it has the effect very often of ripping apart the plies of fabric and rubber of which the tire is composed and injuring it beyond repair. One reason of this is because the strain is localized, being limited to that portion of the tire which is, as it were, fulcrumed with the road, the other reason being that the column of compressed air contained within the tire forms no stable connection between opposite points of the tube's inner circumference, so that differential flexure is unrestrained, and immunity from wreckage can only be attained by making the walls of immense strength, they being built up of numerous layers of fabric and rubber, all thoroughly united by vulcanization.

Solid rubber tires, on the other hand, while lacking the easy cushion of the pneumatics, yet being homogeneous in structure, distribute the tractive strain not only more widely over the tire, but also generally throughout the entire wheel, so that localization of strain is in a great measure avoided, wherefore solid tires, for commercial purposes, should in the main prove more generally satisfactory as applied to the heavy type of vehicle.

Cushion tires I personally consider a hybrid variety, which in effect may be likened to a cross between a balloon and a cannon ball, but minus the buoyancy of the one and the effective power of the other.

The cushion tire is a solid tire partly hollowed out, with the interior spaces devoid of air pressure and relying entirely upon the strength of their bridgments to prevent collapse. It is argued for them that the natural elasticity of the material employed returns the tire shape which has been momentarily altered in the act of rolling under the load. This is no doubt true to a certain degree, but those of you gentlemen who have had experience with cushion tires will bear me out that, sooner or later, a flattening occurs, and this flattening also comes in spots on account of the vehicle standing unused for a length of time. In other words, the elasticity inherent in the rub-

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WILLIAMSPORT, PA.

AUTOMOBILE TIRES.

ber has a limited vitality, and rejuvenation by distension can only be accomplished through interior pressure.

The other day I was watching the process of electric welding performed by one of the solid tire makers in fastening his tires to the wheel rim. This process is most expeditious and satisfactory. The tire, in strip form, is provided with two longitudinal perforations, through which wire strands are passed, with their ends protruding. The tire strip is then placed about the wheel, being drawn and held thereover, with the opposite ends abutting. The rubber strip at one end is then crowded backwardly upon its wires, the wire ends are cut so that they just meet; insulation is applied, and by communicating a powerful electric current through the machine jaws which grip the wire ends, a perfect weld is effected in a very few seconds. The crowded up or compressed rubber end is then released, so that it slips along its wires to effect a junction with the opposing end, and, by means of a little cement at the joint, this is rendered almost invisible. The wire core being drawn very tightly gives the tire a firm seat within its channel and prevents creeping or longitudinal shifting, rendering it, in fact, a substantially integral portion of the wheel. Without this wire reinforcement, or its equivalent, solid tires would have very little serviceability.

Solid tires are also made in endless forms, and this type is slipped sidewise upon a felly and held laterally by means of plates or angles placed at each side of the tire and secured together and to the wheel by bolts passed through them and the felly. In some instances the actual width of the tire, at its seating portion, is greater than the width of the felly, so that the act of closing the flange plates against the felly compresses the rubber and sets up great frictional adherence to avoid creeping. All sorts of merits and demerits are claimed and disclaimed for different styles of solid tires, but it is not my purpose to treat of such, they being mere matters of detail.

Solid tires have unquestionably a large field of usefulness, and, when their liability to chip out in chunks is lessened, they will be better than they are now. Then it will be in order to look for further advancement.

Some two or three years ago I suggested a use for solid tires that I believe was original. It was to take a strip of rubber—of the same length and section as the interior of your pneumatic tire—and carry it in your vehicle, where, in the form of a coil, it would occupy little space.

In case of puncture, you could enlarge

the opening, insert one end of the strip, and run it around inside the tire, so that it would completely fill the space intended for the compressed air. By this means the tire stands up to the same height as its mate, your steering is not affected, and you can get home without further injury to the tire.

I read of some one in England having recently used this device, which proves that they are not always so slow in the old country as they are reported to be.

If I am asked whether the enlargement of the puncture to admit this rubber strip might not have a more serious effect on the tire than to run it home flat, I should decline to answer—in the first place, because I do not know, and in the second, because I do not wish to rob the poor repair man of his perquisites.

It seems to me, however, that automobilists have little use for a tire that goes back on them, for I believe that at least one vehicle in the hundred miles' endurance test on Long Island came home minus a refractory tire, unconcernedly leaving the offending member by the wayside, where possibly it now reposes.

Of course pneumatics, both of the double tube and single tube types, have an inner or air tube. This inner tube is the heart of the tire and should be composed of the finest rubber, as it must contain the air pressure absolutely without leak.

In the double tire, this inner tube is formed and vulcanized separately from the cover, which latter is not air tight, but is simply laced, clinched to the rim or otherwise fastened to form an envelope. By removing the tire from the wheel you can quickly open the cover, remove the air tube, repair it, and slip it back again, or you can insert a new tube and save time.

The single tube pneumatic, which is the most popular form in this country, has its inner or air tube vulcanized in with the fabric and cover, forming an integral structure. The method of making these tires is very simple and doubtless not new to many, still I will describe it briefly for the benefit of those who have not yet had an opportunity of witnessing this operation.

A pole whose section corresponds with the required interior diameter of the proposed tire is provided and is wrapped to a length equal to the circumference desired with a strip of raw rubber of good quality to comprise an air-holding tube. Next several piles of fabric, as many as may be necessary to afford the proper strength to the tire, are wrapped around the air tube. This fabric is calendered, or impregnated with rubber, so that it is really rubber cloth. The lug fastenings

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So Says the GLINES LIQUID RUBBER COMPANY

Providence, R. I., April 22d, 1901.

George W. Strellinger, Esq., Detroit, Mich.

Dear Sir:—Please take notice that we have discontinued the manufacture and sale of tire fluid for the following reasons: You are undoubtedly aware, from the past controversy, that we have been one of the most aggressive and faithful members of the combination formed over two years ago for the purpose of fighting the Buffalo Specialty Manufacturing Company and its "Neverleak Tire Fluid."

We have paid all dues and assessments of the combination and its attorneys, Steuart and Steuart, and done all in our power to aid them to win. Since it has come to light that the Buffalo Specialty Manufacturing Company also owns the Curlin patent, that covers tire fluid, and since Steuart & Steuart, the attorneys of the combination, by letter directed to us, dated March 28th, 1901, have declined to defend the suits already brought on said patent, we are convinced that the claims of the Buffalo Specialty Company upon its patents are valid, and after seeing customers and friends in the trade subjected to expensive litigation, we believe that the interest of our customers and self-preservation require a recognition of the Neverleak patents and this announcement from us.

We have concluded, therefore, to abandon the fight and recognize the rights and claims of the Buffalo Specialty Company, and beg to say to others in the trade that after all this experience we are convinced that the combination and its attorneys, Steuart & Steuart, will ultimately fail, if they have not already done so.

We have therefore discontinued the manufacture and sale of our tire fluid, known as Glines' Liquid Rubber, as above stated.

Yours very truly,

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which you have noted on your tires for securing them to the rims, have base plates which are inserted within the fabric at this stage, an incision being made in the fabric to expose the lug.

The outer cover, being rubber compound with other substances to make it durable, and, incidentally, to cheapen it, is then wrapped about the fabric. The rubber being raw is in a plastic state, so that the edges adhere and lie snugly in position. A small tube of pure rubber and fabric for the valve stem is inserted in the air tube.

The pole being withdrawn from the tire the two ends of the latter are brought together and lapped to form a continuous tube. Then water is poured through the valve stem to form steam, and into this valve stem, what is termed a curing valve is inserted, the tire is inflated and placed within an iron mould formed in two halves and whose interior space is of exactly the proper dimensions and space required. The mould parts being securely bolted together with the raw tire between them, are then subjected to a heat of about 360 degrees for a period of about one hour.

This being done, the tire is completed and, the curing valve being removed, the usual valve is inserted in the stem and bound with wire. Of course this process is varied by different makers, but in substance the steps described comprise the general method of making single tube pneumatics.

Owing to the bugbear of puncturing, some manufacturers advocate the increase in the thickness of the walls to an extraordinary extent, leaving a very small space for the air. They contend that such tires are absolutely safe and still have a pneumatic condition, although much diminished. While the first cost is more than that of the usual type, it would seem as though their duration would be greater.

Other tire makers resort to all kinds of methods of tread reinforcement to obviate the danger of receiving punctures. Some have increased the folds of fabric at the tread to minimize the chances of a sharp flint, nail, or other instrument of tire torture to penetrate to the air tube. Shellac and similar substances are used to make the tread impenetrable, and metal scales inserted between the layers of fabric have been used for the same purpose.

Means like these, while enabling a tire to resist attack, have usually nullified the effect of their penetration resisting quality from the very fact that such quality has been attained at the cost of rendering the tread stiff and unyielding. However much one may dread a puncture, it

AUTOMOBILE TIRES.

is evident that immunity from this scourge will not be purchased at the price of loss of resiliency. Were it sufficient to strengthen the tread or contact portion of the tire alone, the effect would not be so bad, because, while the side walls of the tire are left pliable, the air cushion is fully operative. As a matter of fact, the corners between the tread and the side walls are the most vulnerable part of the tire, because the flattening at the tread which produces those corners spreads them to form a widened base line and stretches them invitingly for punctures. To render the tire immune the armor should extend half way up the tire walls, and to apply it would effectually destroy its other essential qualities.

Tires need care and proper treatment

like everything else, and will repay attention with longer service. You should watch the nut fastenings and be careful to replace the valve caps. These are little things, but their observance will avoid many a trouble. Above all, do not leave your machine standing for any length of time upon a deflated tire, as a good tire may easily be ruined in such a manner.

It has occurred to me that much of the rubble, loose stones, broken bottles and debris met with in the roads, and which if not avoided by careful steering must be surmounted, might be turned aside from the path of the front wheels by individual pilots, depending from the frame just ahead of the wheels. The pilots could be obliquely arranged strips, pivotally and tensionally supported, so that should they strike a car rail or other

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immovable body they will be forced backwardly to clear it and spring forward to the operative position again. Such a device, if practicable, would certainly relieve the tires of a certain percentage of the enemies they now encounter in their travels abroad.

I look to see experience at the hands of those operating automobiles bring out gradually all the defects, and they are the ones who can point out to skilled mechanics what might be done to improve the structure or arrangement just a little bit.

I should also speak of rim cutting, which has been a cause of much destruction of tire property. This is a trouble which should never have occurred, for it can be easily avoided by either slightly flaring the rim edges, or, better, by beading them. It is a fact that when anything new is to be done, a wrong method is usually tried first, and the troubles met with are what finally turn us to the better way. It is my earnest desire, which I am sure many share, that in matters pertaining to the automobile we may jump ahead ten points at a time, for these present are precious years, and we want to have our pleasure out of this new means of locomotion right now while we know our powers of enjoyment to be in full working order.



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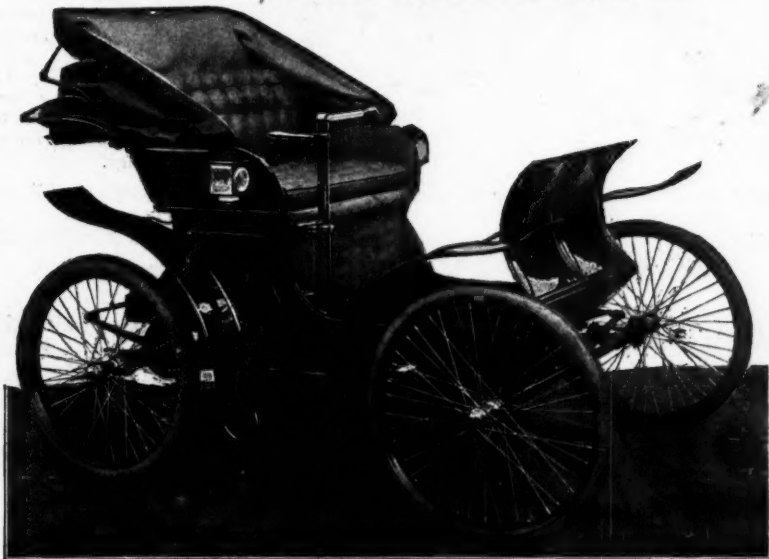
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A **Surrey** will be ready for delivery **May 15th**; also a light delivery wagon.

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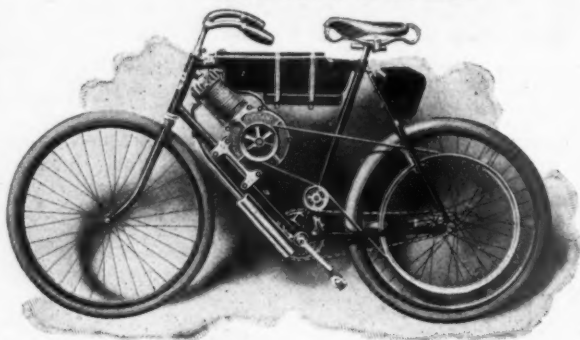
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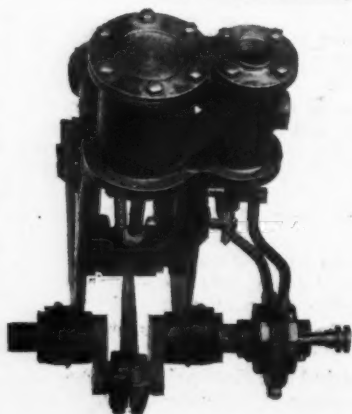
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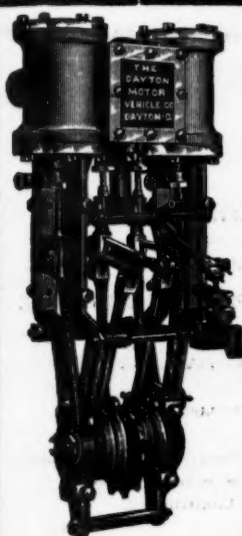
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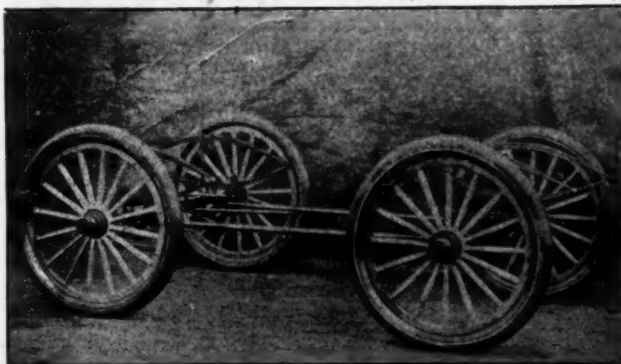
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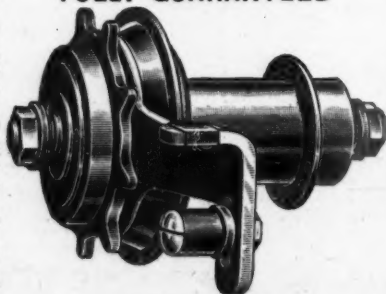
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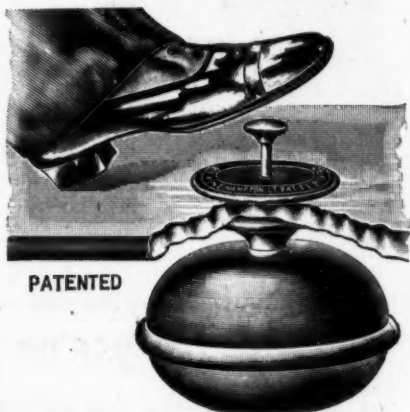
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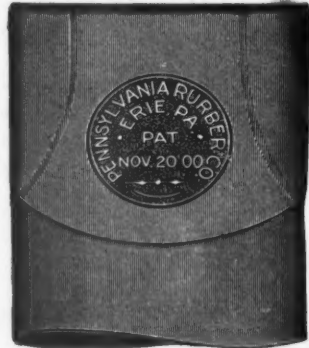
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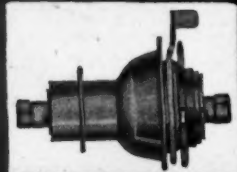
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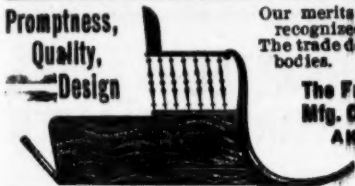
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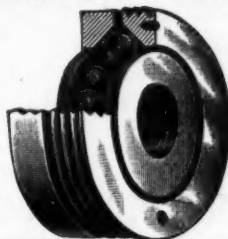
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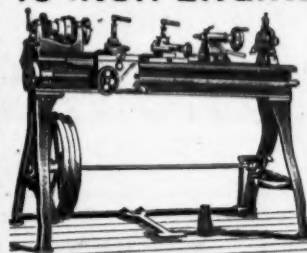
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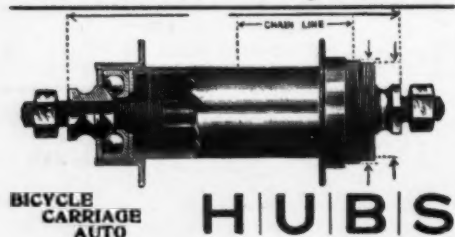
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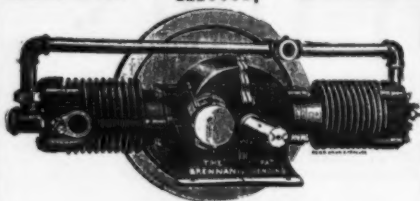
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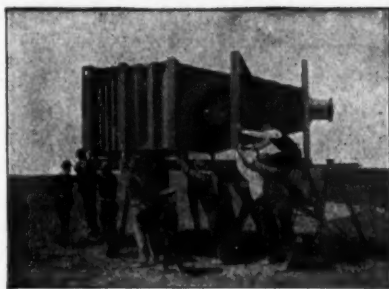
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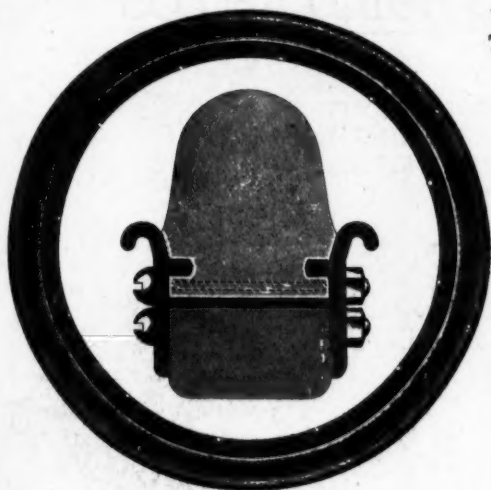
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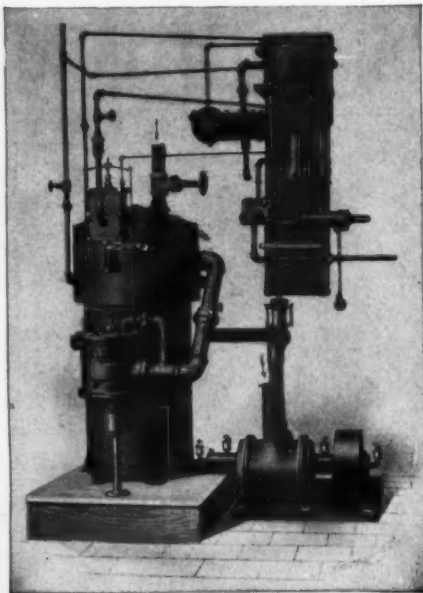
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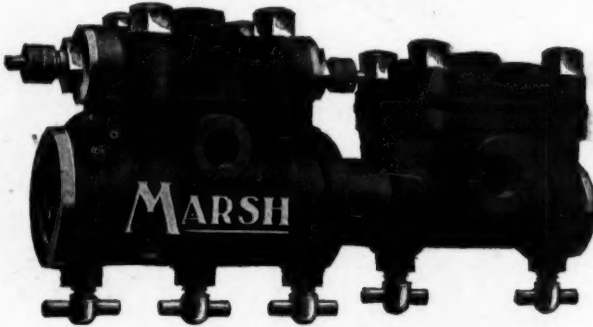
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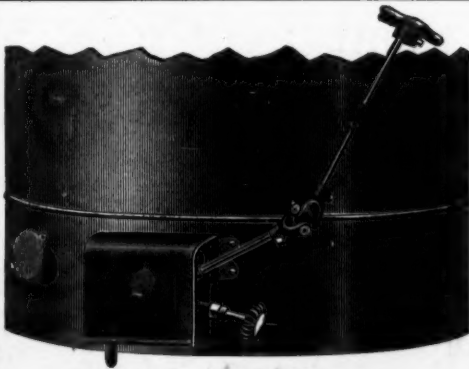
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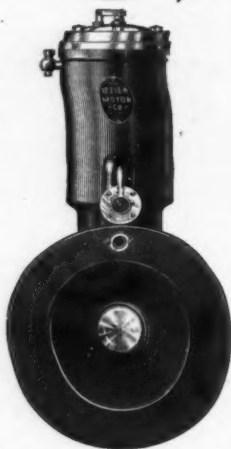
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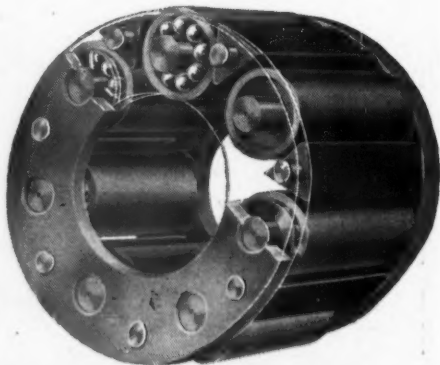
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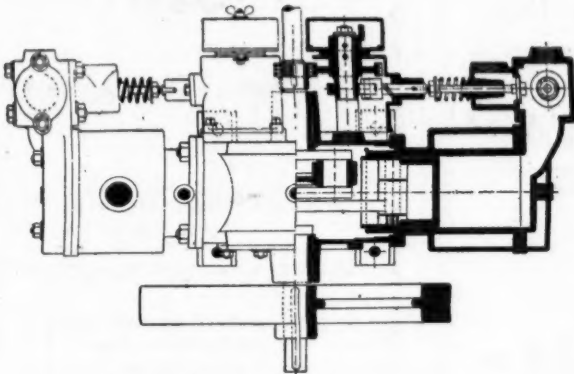
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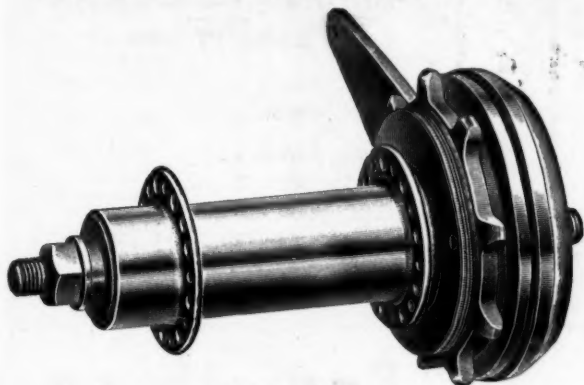
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385 Perkins Ave., CLEVELAND, O., U. S. A.

G & J TIRES

Detachable—Double Tube

Made from the best materials; constructed on correct mechanical principles; so simple to handle that any novice can easily make a roadside repair. They satisfy the rider—and satisfied customers make a satisfactory business.



G & J TIRE CO., Indianapolis, Ind.



Advance Drills...

FOR BICYCLE REPAIRERS.

Well made, Light draft, Continuous automatic self feed.

14 Sizes and Styles...

\$6.00

to

\$85.00

NO. 12
ADVANCE
LIGHT
POWER,
125 LBS.
\$13.

Special discounts to bicycle repairmen....

EVERY DRILL GUARANTEED.

THE SILVER MFG. CO., Salem, Ohio.
325 Broadway.

These are said to be

THE BEST BELLS MADE

Try a Sample



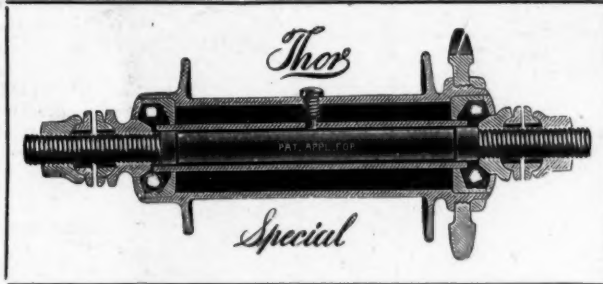
No. 61, 5 inch Gongs. Double Chiming Gongs
No. 62, 5 inch Gongs. Electric Stroke Double Gongs

BEVIN BROS.
East Hampton, Conn.

Western Agents, Excelsior Supply Co.
Chicago, Ill.

THE 
ALL-RIGHT

THOR



THE HUB THAT MADE BICYCLES HIGH GRADE

and that has been the standard of excellence ever since its introduction.
KEEP TAB ON THOR GOODS by having a catalogue handy.

AURORA AUTOMATIC MACHINERY CO., Aurora, Ill.

U. S. Sales Agents, Brandenburg Bros. & Wallace, New York and Chicago.

IT'S A WINNER

WHICH?

THAT BICYCLE

\$12.50

TO DEALERS:

INDIA SINGLE TURES
KELLY FORWARD EXT. BAR
GARFORD SADDLE
RECORD PEDALS
LANZ, OWEN & CO., TOOLS

RETAILS FOR \$25

AND IS WORTH IT

WHICH?

Puritan Tire & Rubber Co.

X X X Brand

SINGLE TUBE TIRES

"All Brand New without a Blemish"

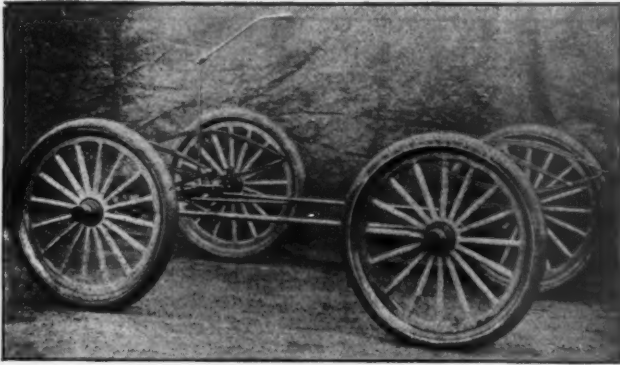
\$1.93 PER PAIR

ALSO THE "PURITAN" DOUBLE
TUBE "GUARANTEED" FOR
ONLY **\$2.90**

RALPH TEMPLE CO.,

293-295 Wabash Ave.
CHICAGO

Automobile Running Gears



Get a running gear that is past the experimental stage and build a **SUCCESSFUL AUTOMOBILE**. We make two styles complete with springs and wood wheels, solid rubber or pneumatic tires.

OUR SPRING BLOCK BEARING IS SELF-ADJUSTING

and you ought to have it. It is made for revolving axles and is pivoted between the bearing and spring block, enabling the bearing to move free and easy with the axle always. Our catalogue tells all about it.

The Brecht Automobile Co. 1201 Cass Avenue, **St. Louis, Mo.**



MARQUETTE



**THE NEW NAME
IN THE TIRE TRADE
IT STANDS FOR**

**BROADEST
GUARANTEE
ON EARTH**

AND

**MODERATE
PRICE** ❁

Barrett Sundry & Manufacturing Company
CHICAGO, ILLINOIS.

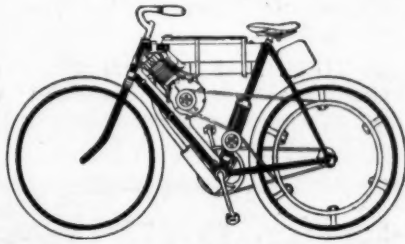
Learn also about the Marquette Inner Tubes.

Pleasure == AND == Profit

The AUTO-BI has become an important factor in the business life of many men. It means to them a saving of time and becomes synonymous with an increase in profit. * * *

Mr. Alvin T. Simkins, manufacturer of bake ovens and bakery supplies, of St. Louis, Mo., under the date of April 26th writes as follows:

"I have found the wheel a great help to me, it is doing all I expect of it. I can run it as I want to in the crowded streets. It does not and gets there hotel there is a me all the time. know of the hundred times put it up to some persons hotel and asked out to-morrow, come and see it on the street. I wish all would have as much pleasure with your motor cycles as I am having. I go to work and go to order material in every part of the city, in short, in and around the crowded streets and hear some one hallooing on both sides 'look at that' and many other remarks. So I think it suits most people I run across."



Every bicycle dealer in the land should show the progressive business men of his town the advantages of the AUTO-BI. It is the one AUTOMOBILE that is always ready on the instant. By its use business is carried on with greater dispatch, and as a constant advertisement it will earn its cost many times over. * * *

PRICE \$200

E. R. Thomas Motor Co. ¹⁰³ BROADWAY **Buffalo, N. Y.**



THE GOODYEAR
PUNCTURE PROOF TIRE
OUTWEARS

ALL OTHERS

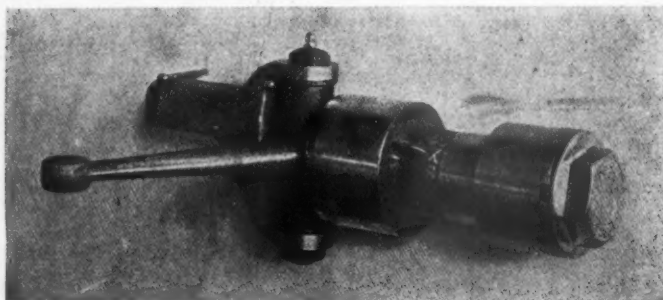
The Goodyear Tire and Rubber Co.

AKRON, OHIO

LARGEST TIRE MAKERS IN THE WORLD

United States Ball Bearing Co.

Townsend Bldg., Broadway and 25th St., NEW YORK CITY



AUTOMOBILE MANUFACTURERS—ATTENTION!

The Baker Ball Bearing Axles has been found by the leading and up-to-date Automobile Manufacturers to be the Best, Neatest and Most Perfect....

...ANTI-FRICTION AXLE ON THE MARKET...

We furnish steering knuckles complete with yokes for either
forged or tubular gears, suitable for either wire or wooden wheels

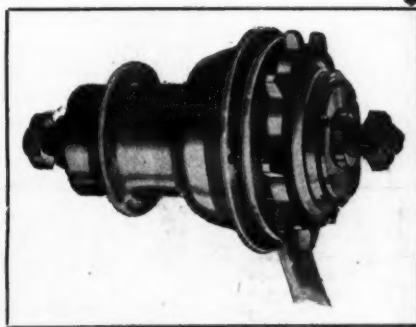
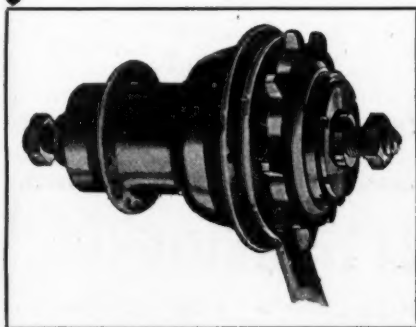
Drawings Supplied if Necessary

We Solicit Your Correspondence

YESTERDAY—TODAY—TOMORROW
IN THE PAST—THE PRESENT—THE FUTURE

The Morrow

HAS LEAD—LEADS—WILL LEAD



It is not destiny or fate. It is merit—intrinsic worth—proven superiority, coupled with the Eclipse determination that there shall be **NO LAGGING—NO TURNING BACK—NO LET-UP OR LET-DOWN.**

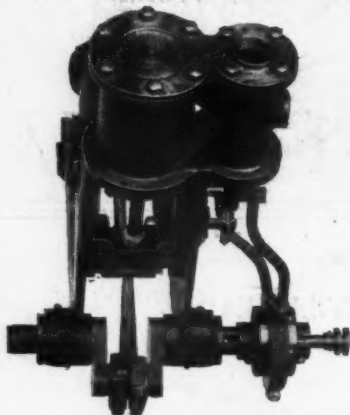
The Morrow

was first—is first—and will remain first. It is on top and on top we mean it shall stay ∴

ECLIPSE MFG. CO. - - Elmira, N. Y.

New York Branch, 105-107 Chambers Street.

NOT A STEAM ENGINE BUT THE STEAM ENGINE



THE TUCKER STEAM ENGINE

The only one built on lines especially adapted for Automobiles. One eccentric directly connected. No links or blocks. Link motion discarded and every other superfluous part which is liable to wear, rattle or consume energy.

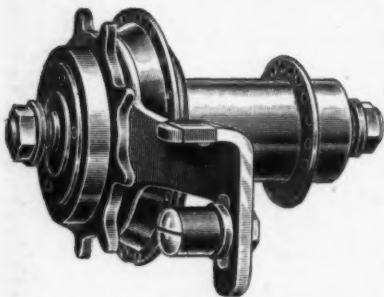
Write for descriptive booklet.

TUCKER & CO., Urbana, Ohio

UNIVERSAL COASTER BRAKE....

BEST IN THE WORLD

FULLY GUARANTEED



PRICE \$4 75

BECAUSE:

- No lost motion. Dust and water proof.
- Automatic releasing brake.
- A tight pedal and a free wheel.
- Absolutely free rear wheel either way.
- Free from noise when applying brake.
- Perfect control of wheel at all times.
- Will carry any rider down the steepest hill with perfect safety.
- Free from ratchets, balls or other objectionable mechanism.
- Appearance hardly indicates presence of brake.
- Best material and best workmanship.
- Adds only one pound to weight of wheel.

**MANUFACTURED BY
UNIVERSAL COASTER BRAKE COMP'Y
BUFFALO, NEW YORK**

OFFICE:
318 ELLICOTT SQ.

BRANDENBURG BROS. & WALLACE
New York and Chicago, Selling Agents.

NOTICE

SEARCHMONT MOTOR CO. 1230 ORKNEY ST. PHILADELPHIA, Pa.

We are now ready to begin spring deliveries of our well known **Searchmont Vehicles**. We have some for immediate delivery, and are prepared to deliver them in quantities **beginning May 1st**.

We have been working all winter preparing jigs and special tools for the duplication of parts; and today we have one of the largest and best equipped factories for the manufacture of vehicles in the world.

Searchmont Vehicles are past the experimental stage, they are thoroughly practical in every way, and are made for every day use.



The Vehicle shown in the cut is equipped with a **double cylinder ten horse power gasoline engine**, and carries sufficient gasoline and water for a 100 mile run.

We make several different styles of bodies besides the one shown; the "Wagonette" with curved dash and fenders; with the conventional boot in front, or fitted with a built in front seat for a third person or two children, may all be seen in operation at our works.

A **Surrey** will be ready for delivery **May 15th**; also a light delivery wagon.

We are prepared to place agencies in a few of the large cities. We want active, hustling representatives who have proper financial backing and who are experienced in this particular work.

We are not going to place more agencies than we can properly supply, and therefore all of our agencies can be made to pay.

The Searchmont Vehicles were awarded the first prize, bronze medal, in the gasoline class at the recent Automobile Show, in Philadelphia.

Correspondence and trial of our machines solicited.

SEARCHMONT MOTOR COMPANY

QUALITY PROMPTNESS PRICE



We wish to impress you with the extreme ease and promptness with which we can execute your orders. ∴ ∴ ∴ ∴

With the superior quality of goods we sell, with the very low prices we make. These things are worth while to us. We can make them worth while to you. ∴

If you are not doing business with us now, let us hear from you to-day, we can do you good as well as the thousands of satisfied customers we now have. ∴ ∴

EVERYTHING FOR
BICYCLE DEALERS
AND BUILDERS

EXCELSIOR SUPPLY CO. 88 & 90
Lake St., CHICAGO, ILL.